

HANNU JOUHKI

# The Easy Way Out

Escapism as a central motive for addictions



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ACADEMIC DISSERTATION

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## Dedication

To my late father who taught me not to label people based on their behavior, because there is always a reason for it.

# ACKNOWLEDGEMENTS

I was only supposed to take a couple of social science classes when keeping up my erstwhile career in the pharmaceutical industry. I had no imminent need to find a better job or to make something else of my life, at least that was what I told myself in the early 2010s. Things started to unravel quite exactly ten years ago as we moved back to Finland with my family, having spent some years working and living abroad. We settled in Tampere, and I enrolled in Tampere University to study social psychology as my major. In hindsight, what started as a glance at the introductory courses in social sciences, apparently got out of hand at some point, and here I am defending my doctoral dissertation in social psychology. For this, I have only myself to blame, but a great many people to thank.

I will start by expressing my profound gratitude to my wife Marjut, whose love and unwavering support has kept me going through the most exhausting moments. She was the one who unwittingly guided me towards social psychology with a simple and ingenious question: why don't you study something you would like to read anyway? Our beloved daughters Nelli and Bertta grew into adults while I was working on my dissertation. Watching them create their own paths has been the greatest gift in my life and helped me put my own endeavors into perspective. I am forever grateful to my mother Ulla, who has always believed in me.

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I am deeply grateful to my employer A-Clinic Foundation for the continued support. It has been a privilege to work for an organization helping people who live with addiction disorders. To me, the dissertation work became somewhat of a mission to increase knowledge around this engaging, yet tremendously challenging topic. My warmest gratitude goes to all members of the board and the management team as well as the dedicated individuals in our personnel.

I have been blessed with so many fine friends along the way who have had a lasting impact on my life. Some of you go back to my elementary school years, others back to student life at Helsinki School of Economics during the 1990s, when nobody had anything, but together, we had it all. Thank you for your friendship, care, and loyalty across all these years.

“You can’t live in this world but there’s nowhere else to go.”

— “Warren Coughlin” in the novel *The Dharma Bums* by Jack Kerouac

Tampere, March 2025



# ABSTRACT

Escapism is a tendency to seek flight from reality or distraction from real-life problems and controversies. Anxious feelings arising from relationships, personal finances, work issues, or situational factors urge people to escape the present moment. Sometimes, escapism may originate from deeper psychological processes such as excessive self-awareness, agonizing self-evaluation, or traumatic life experiences. Further inducement for escapism stems from the pressures faced by a human being in the contemporary world, increasingly defined by technology, the market economy, and individualism. Both external societal developments and internal mental factors give rise to the need for momentary relief from a distressing reality.

This dissertation examines the link between escapism and addiction. The thought of getting a break from a troubling life situation by engaging in an instantly gratifying activity is quite intuitive. Using psychoactive substances or self-medicating as a means to cope with stress is familiar to many. As addictive behaviors have emerged in a variety of new forms and the addiction phenomenon has become an integral part of everyday life, it is necessary to study whether escapism serves as a central motive for addictions. This dissertation consists of three research articles, the first of which investigated the link between escapism, alcohol consumption, smoking, drug use, and gambling based on data from the Finnish Drinking Habits Survey 2016. The second article examined whether escapism predicts excessive gambling, gaming, and internet use. The third article analyzed what characteristics are shared by escapist and how escapism is associated with excessive gambling and gaming together with the frustration of being unable to attain basic psychological needs. The data for the second and third articles originated from the Gambling in the Digital Age Project 2021–2024, a multi-wave survey representing the Finnish adult population. The statistical methods were linear and logistic regression, as well as multilevel regression using hybrid models.

The findings of this dissertation show that escapism predicts addictions and addictive behaviors. It has a robust association with alcohol consumption and is consistently linked with smoking and drug use. Also, it has a strong effect on excessive online gambling, digital gaming, and internet use. The association between escapism and excessive online behaviors was registered on two levels: a within-person change in the level of escapism was reflected in the intensity of the addictive behavior whenever a person went through periods of heightened or lowered escapism. A between-person effect demonstrated that people who were generally more prone to escapism reported a higher level of addictions. A perceived lack of autonomy and competence, respectively, intensified the effect of escapism on digital gaming, and competence frustration amplified escapism's effect on excessive gambling. The nationally representative and longitudinal datasets highlight the importance of the results. Recognizing escapism as a central motive for addictions helps social services and healthcare professionals better identify the root causes of addictive disorders. For researchers, escapism provides a versatile and powerful concept that can be applied in the study of addictions.

Keywords: escapism, addiction, gambling, gaming, autonomy, competence, technological change, individualism

# TIIVISTELMÄ

Eskapismilla tarkoitetaan halua paeta tai välttää tosielämän ongelmia ja ristiriitoja. Ihmistä voivat ajaa todellisuuspakoon ajankohtaiset ihmissuhde-, talous- ja työongelmat tai psyykkiset tekijät kuten liiallinen itsensä tiedostaminen ja jatkuva oman käyttäytymisen arviointi tai traumaattiset elämäkokemukset. Toisaalta eskapismien taustalla voi nähdä syvällisen elämäntavan muutoksen, joka on tapahtunut teknologian, markkinatalouden ja yksilökeskeisyyden myötä. Ihmiseen vaikuttavat niin ulkoiset, yhteiskunnalliset kehityskulut kuin sisäiset mentaaliset prosessit, joiden kuormittama yksilö etsii ulospääsyä tai ainakin hetken helpotusta ahdistavasta todellisuudesta.

Tässä väitöskirjassa tutkitaan eskapismien yhteyttä addiktioihin ja riippuvuuskäyttäytymiseen. Ihmiset ovat kautta aikojen laukaisseet stressiä tai lääkinnettä mieltään turvautumalla nopeisiin mielihyvänlähteisiin esimerkiksi ottamalla ryyppyn tai polttamalla savukkeen. Kun riippuvuuskäyttäytyminen on monimuotoistunut ja addiktiot ilmiönä ovat tulleet osaksi päivittäistä elämäämme, on tarpeen selvittää, toimiiko eskapismi keskeisenä vaikuttimena riippuvuuksien syntymisessä. Väitöskirja koostuu kolmesta osajulkaisusta, joista ensimmäisessä tutkittiin eskapismien yhteyttä alkoholinkäyttöön, tupakointiin, huumeidenkäyttöön ja rahapelaamiseen. Artikkelissa hyödynnettiin kansallisen juomatapatutkimuksen kyselyaineistoa. Toisessa julkaisussa selvitettiin, ennustaako eskapismi liiallista online-rahapelaamista, digipelaamista ja internetin käyttöä. Kolmannessa julkaisussa analysoitiin, mitä yhteisiä piirteitä eskapistisesti käyttäytyvillä ihmisillä on, ja kuinka eskapismi yhdessä psykologisten perustarpeiden laiminlyömisensä kanssa liittyy liialliseen rahapelaamiseen ja digipelaamiseen. Toisen ja kolmannen artikkelin aineistona käytettiin Rahapelit digiajassa -hankkeen pitkittäisasetelmaan perustuvaa kyselytutkimusta, joka edustaa suomalaista aikuisväestöä. Malleissa käytettiin lineaarista ja logistista regressioanalyysia sekä hybridimalleja, jotka mahdollistivat yksilön sisäisen ja henkilöiden välisten muutosten analysoinnin samanaikaisesti.

Väitöskirjan tulokset osoittavat, että todellisuuspakoinen käyttäytyminen ennustaa päihteiden käyttöä, rahapelaamista, digipelaamista ja internetin käyttöä.

Eskapismin yhteys liialliseen online-rahapelaamiseen, digipelaamiseen ja internetin käyttöön todettiin kahdella tasolla: yksilön kokeman eskapismin muuttuessa myös riippuvuuskäyttäytymisen intensiteetti nousi tai laski vastaavasti. Lisäksi keskimäärin todellisuuspakoisemmilla henkilöillä todettiin enemmän addiktioita kuin vähemmän eskapismia kokevilla. Autonomian ja kompetenssin vaje voimisti eskapismin yhteyttä digipelaamiseen ja kompetenssin vaje tehosti eskapismin yhteyttä rahapelaamiseen. Laajat aineistot ja pitkittäisasetelmat vahvistavat löydösten merkittävyyttä. Eskapismin ymmärtäminen addiktioiden keskeisenä motiivina auttaa sosiaali- ja terveydenhuollon ammattilaisia tunnistamaan paremmin riippuvuushäiriöiden ja -sairauksien juurisyitä sekä tarjoaa tutkijoille selitysvoimaisen tavan analysoida addiktioita.

Avainsanat: eskapismi, addiktio, rahapelaaminen, digipelaaminen, autonomia, kompetenssi, teknologinen muutos, individualismi

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# ABBREVIATIONS

APA	American Psychiatric Association
ASAM	American Society of Addiction Medicine
AUDIT	Alcohol Use Disorders Identification Test
AUDIT-C	Alcohol Use Disorders Identification Test-Consumption
BDMA	Brain Disease Model of Addiction
BNSFS	Basic Need Satisfaction and Frustration Scale
BPNT	Basic Psychological Needs Theory
CAPi or CAMI	Computer-Assisted Personal Interviews
CIUS	Compulsive Internet Use Scale
COVID-19	Coronavirus disease 2019
DALY	Disability-adjusted life year
DSM-5	Diagnostic and Statistical Manual of Mental Disorders, Fifth Edition
EIS	Eysenck Impulsivity Scale
EUDA	European Union Drug Agency
FCTC	Framework Convention on Tobacco Control
GBD	Global burden of disease
HIV	Human Immunodeficiency Virus
ICD-11	International Classification of Diseases 11th Revision
IGD	Internet Gaming Disorder
IGDT	Internet Gaming Disorder Test
I-PACE	Interaction of Person-Affect-Cognition-Execution
I-RISA	Impaired Response Inhibition and Salience Attribution
IST	Incentive-Sensitization Theory of addiction

MTPI-R	Motivation to Play in Online Games-Revised
PGSI	Problem Gambling Severity Index
RDS	Reward Deficiency Syndrome
RFT	Regulatory Focus Theory
RQ	Research question
SDT	Self-Determination Theory
SES	Socioeconomic status
SUD	Substance use disorder
TENK	Finnish National Board on Research Integrity
UNODC	United Nations Office on Drugs and Crime
WHO	World Health Organization
YLD	Years of life lived with disability
YLL	Years of life lost



## ORIGINAL PUBLICATIONS

- Article I Jouhki, H., & Oksanen, A. (2022). To get high or to get out? Examining the link between addictive behaviors and escapism. *Substance Use & Misuse*, 57(2), 202–211. <https://doi.org/10.1080/10826084.2021.2002897>
- Article II Jouhki, H., Savolainen, I., Sirola, A., & Oksanen, A. (2022). Escapism and excessive online behaviors: A three-wave longitudinal study in Finland during the COVID-19 pandemic. *International Journal of Environmental Research and Public Health*, 19(19), 12491. <https://doi.org/10.3390/ijerph191912491>
- Article III Jouhki, H., Savolainen, I., Hagfors, H., Vuorinen, I., & Oksanen, A. (2024). What are escapists made of, and what does it have to do with excessive gambling and gaming? *International Journal of Mental Health and Addiction*, 1–18. <https://doi.org/10.1007/s11469-024-01394-x>



# 1 INTRODUCTION

Addiction has become a phenomenon of our times, and with it has emerged a variety of behaviors we now recognize as addictive, compelling, or excessively appealing. Technological development has provided a digital interface for many pleasurable activities and made instant gratification available at all times.

Humankind has known psychoactive substances throughout its history with their sociocultural influences, medical purposes, spiritual usage, and even the related harm, yet the concept of addiction did not become widely recognized until its relationship to excessive alcohol and drug use became evident in the era of the Industrial Revolution (Gray, 2022; Heath, 2008). For the past 200 years, substance abuse has increasingly been recognized as a disease, although with a persistent moralistic undertone (Caquet, 2020; Edwards, 2010). However, after making their re-entrance into modern societies in the post-war twentieth century, illegal drugs have been a focus of interest in the field of addictions.

In addition to substance abuse, a multitude of behaviors such as shopping (Brand & Müller, 2023; Pickering & Norberg, 2023), sex (Griffiths, 2012; Pistre et al., 2023), gambling (Kim & Hodgins, 2019), digital gaming (Mestre-Bach et al., 2022), social media (Andreassen, 2015), exercise (Landolfi, 2013), and work (Morkevičiūtė & Endriulaitienė, 2023) have been studied within an addiction framework. Until a few decades ago, most of these behaviors were hardly considered problematic, and most of them did not even exist at all in their present form.

Addiction has been roughly equated with the psychological aspects of dependence. More precise definitions will be discussed in the next sections of this dissertation, but for introductory purposes alone, a broad working definition needs to be established. Addiction is a multidisciplinary area of research. It is plausible to claim that addiction develops in an interplay of genetics, nurture, biology, psychology, society, technology, and other factors, both internal and external, to which human beings are exposed over the course of their lives. One interesting

direction of research is to examine the relatedness and shared characteristics of different types of addictive behaviors (Kótyuk et al., 2022).

An important distinction must be made between diagnosed addictions and other excessive behaviors. In this dissertation, the term *addiction* refers only to conditions listed in the International Classification of Diseases, 11th Revision (ICD-11; World Health Organization [WHO], 2022) and the Diagnostic and Statistical Manual of Mental Disorders, Fifth Edition (DSM-5; American Psychiatric Association [APA], 2013) disease classifications. Otherwise, expressions such as addictive or *excessive behaviors* are used. Although the full range of classified addictive disorders is broader, my topics of interest include harmful consumption of alcohol, taking drugs, and smoking under the substance use disorders category, and gambling and digital gaming in the group of behavioral addictions. Additionally, excessive internet use is examined as part of the models, even if it is not formally classified as an addiction. I chose these activities over other types of substances and behaviors due to their scientifically and clinically proven potential for addiction. Another reason was their adverse influence on public health and social well-being.

The diverse origin of the addiction phenomenon is broadly accepted. Science has not traced addiction to a single cause but has instead pointed towards a variety of factors in the psyche and its environment (Griffiths, 2005; Hall et al., 2015; Kovac, 2013). That is why in order to find the pathways to addiction, we must look into the borderlands of mind and matter, of the abstract and the tangible. The challenge and inspiration in understanding how behavior develops into an addiction lies in recognizing what shapes our consciousness and daily life experience.

At the core of addiction research is the question of motives. Why and how have addictive behaviors saturated our everyday lives to the extent that we engage in repetitive pleasure-seeking habits almost unconsciously? To help explain how modern existential anxieties connect with compulsive pleasure-seeking behavior, I use the concept of escapism. It provides a powerful and versatile approach to addictive behaviors. Escapism is an intuitive way to understand the human need to free our minds from life's controversies and stressors. Having a drink or smoking a cigarette are familiar and stereotypical ways to alleviate a bad mood or to take a break from issues related to work, relationships, finances, trauma, and so on. When escapist drinking or smoking becomes a habit, one potential outcome is addiction. However, more than mere stress avoidance, escapism is rooted in the sensation of existence itself. In this dissertation, I will explain escapism from various theoretical

perspectives such as escaping the self and escaping from personal freedom by abandoning the freedom of choice. While it is possible to identify a number of drivers that provoke and accelerate addictions, the focus of this work is to build a case for escapism as a psychosocial phenomenon that induces and predicts addictive behaviors in various forms. My definition for escapism is based on the negative aspects of the concept, referring to the reasons why we seek distraction from unpleasant, troublesome, or controversial situations. The concept of escapism is more thoroughly defined and examined in Section 2.

This dissertation includes the results reported in three peer-reviewed and published original research articles. **Article I** investigated how escapism is connected to alcohol consumption, smoking, drug use, and gambling. The data utilized were from the nationally representative Finnish Drinking Habits Survey 2016 (Mäkelä et al. 2019), which is a survey that is conducted every eight years. The data provided a profound, cross-sectional view of substance use and gambling habits across the population. **Article II** studied the longitudinal effects of escapism on excessive online behavior. The data were provided by an ongoing multi-wave survey conducted at Tampere University as part of the Gambling in the Digital Age Project, 2021–2024. The initial survey involved 1,530 participants, and the retention rate across multiple measurement points was strong. **Article III** examined how the frustration resulting from the inability to meet basic psychological needs, personality characteristics, and sociodemographic factors predict escapism. The study also analyzed whether frustration with not meeting basic psychological needs moderates the relationship between escapism and excessive gambling and gaming. The second and third articles applied the same survey, with **Article II** running from the initial survey at time point one (T1) to time point three (T3) and **Article III** covering periods from T1 to time point five (T5). Close attention was paid to choosing the most adequate and robust regression analysis method for each type of data and study design.

This dissertation starts with a review of the central research literature and theoretical approaches to the concepts of escapism and addiction. The public health aspects of addictions are also discussed. I then outline the objectives and research questions of this work. Next, I describe how the data were collected, measured, and analyzed. In addition, the variables and their characteristics are explained before moving on to the results. The discussion section addresses the findings from a more holistic perspective, combining the results with reflections on theoretical and

practical implications as well as an assessment of the strengths and limitations. The final part of the dissertation is composed of original peer-reviewed research articles published in international scientific journals.

## 2 ESCAPISM

Seeking distraction from reality can take many forms and happen in multiple contexts. Broadly speaking, everything people do to experience things can be interpreted as escapism. Art, entertainment, exercise, watching sports, or going out with friends may all be seen as producing sensations outside of ordinary, everyday life. Arguably, the reason for engaging in various activities is not only the face value of a particular behavior, such as exercising to stay healthy or reading to educate oneself, but also a desire or a need to leave everything else aside for a moment and be immersed in either the physical, psychological, or social rewards the activity provides. However, a broad definition of escapism leads to difficult questions about the true nature of human existence. If almost everything people do were to serve the purpose of escapism, what would then be the essence of human life or the true reality that people so badly want to escape from? Without undertaking the philosophical task of defining the ultimate nature of existence, firstly it must be noted that escapism has been identified as a concept in psychology and social sciences (Konzack, 2017; Stenseng et al., 2021) and associated with various types of addictions (Ledgerwood & Petry, 2006; Männikkö et al., 2017). Secondly, it is important to note that escapism is context-bound. That is why no activity as such should be labeled “escapist” and something else “non-escapist.” What represents escapism for one may be an occupation for another (Calleja, 2010). It is rather what people use the given activity for that makes it escapist or not. To study escapism as a driving force behind addictions, it is necessary to define the concept in an operational and consistent way. For that purpose, it is important to understand how the modern way of life has contributed to the rise of escapism. Modernity in terms of this dissertation is a general concept referring to the changes resulting from human, technological, economic, and social developments. It does not differentiate between modern, postmodern, industrial, and postindustrial.

## 2.1 Modernity and societal development

The dramatic development in technology, economy, and moral authority in the past few centuries set in motion huge changes in wealth distribution, people displacement, sense of community, and structures of power and hierarchy. These macro-level evolutions inevitably have an impact on one's individual experiences and sense of existence; in short, they deeply affect how it feels to be human in any given era. In traditional societies where the way of living was static and oftentimes based on only the local exchange of ideas, favors, goods, and services, many of the options and problems faced by modern individuals were absent. Our sense of being in the world is rooted in routines and conventions to the extent that a potential reality beyond the ordinary is somewhat frightening. It is natural that moving from the known to the unknown creates anxiety. An extreme interpretation would be that abandoning the generally accepted habits and ways of life leads to chaos. A major change started with the rise of capitalism and private ownership; earlier conventions and habitual rights were turned into business transactions and trade negotiations between people, who themselves became economic agents in addition to being citizens. Thus, modern developments have had a massive influence on how human minds have gradually become more and more burdened with moral, social, technological, and economic issues (Giddens, 1991).

After the church started to lose its power as a supreme moral authority, people had to work out their own answers to difficult ethical or existential questions. The choice of alternatives in all domains of life increased and became so overwhelming that the human mind started to limit its options to a more bearable level. By denying their power to choose and recouring to traditional or constrained solutions, people avoid being faced with hard ethical choices. An extreme example of self-suppression is accommodation to repressive power structures. It has been argued that some of the darkest occurrences in modern history, such as support for the mass extermination of Jews in the Second World War or approval of the prison camps organized by Stalin and other communist regimes, were also manifestations of abandonment of free choice. In this sense, escapism could be interpreted as an escape from freedom (Fromm, 1994). While the past half century saw considerable progress in terms of human liberation from external domination, especially in Western culture, in many respects, people and nations are again succumbing to



authoritarianism. Quite evidently the age of collective escapism is back, and it embodies the concept that people are willing to seek distraction and relief from agonizing reality even if it means sacrificing their personal freedom.

The evolution of modernity goes on at an exponential pace. While technological, scientific, and agricultural advances provide new opportunities for countless people around the world, they also bring along continuous challenges for coping with new ways of working, staying employed, or maintaining normal routines. The changes in working life are a major issue in terms of mental well-being. In postindustrial societies, ever more jobs deal with abstractions and demand more cognitive skills than before (Marengo, 2019; Ra et al., 2019). While technology has liberated workers from repetitive and dull physical tasks, together with tightening competition and performance-driven culture, it has also created new demands in terms of task measurability and employee availability and accountability (Gerich & Lehner, 2023).

Paradoxically, globalization has left people at the mercy of faceless political and economic decision-making, while simultaneously it has created an era of hyper-individualism (Alexander, 2022). Assuming the role of economic agents, people optimize their own outcomes in a market-driven reality that now extends to virtually all domains of life. At the same time, traditional communities such as nonprofit societies, charities, sports clubs, and other associations have begun to dismantle which further increases privacy of life to the detriment of a shared sense of community (Putnam, 2000). With the rise of social media and smartphones, the ways of social interaction have undergone a profound change with new types of social communities but also more platforms for self-enhancement and mutual comparison (Gil-Or et al., 2015; Tobin et al., 2020). If we add to this political polarization and identity politics (Fukuyama, 2018) and the psychologically inflexible, avoidant responses to social isolation caused by the COVID-19 pandemic (Smith et al., 2020; Wu, 2020), we can see that the concern for increased escapism across the world feels increasingly justified.

Technological progress, global capitalism, hyper-individualism, social fragmentation, and political polarization represent environmental background factors that provoke powerlessness, alienation, and a lack of purpose (Greene, 2008; Snower & Bosworth, 2021; Steinmann, 2022). A person suffering from adverse psychosocial circumstances may become more inclined to seek distraction from reality through escapism. This section has examined the external conditions that may

induce escapist behavior. Escapism can also be approached with an emphasis on the internal mechanisms of the psyche, which will be the topic of the next section.

## 2.2 Psychology of escapism

Scientific literature on escapism is inconclusive and lacks integrative theories. In the absence of a generally accepted unifying theory, this dissertation builds on existing models of escapism, theories on motivational responses, and recent conceptual debate around the topic. This section presents an overview of the essential psychosocial theories and their interconnectedness to establish adequate conceptual clarity for my research hypotheses and questions.

People differ from one another in how much they adjust their behavior according to the social context. Individuals reporting higher need for social appropriateness are more inclined to monitor their own behavior and consider situational requirements. So-called high self-monitors usually have a good idea of what is expected of them in different circumstances. Advanced self-control helps high self-monitors to manage the impressions they give and convey desired messages in diverse contexts. In contrast, people with low self-monitoring characteristics base their behavior more on personal judgment than external cues (Snyder, 1974). Low self-monitors may not be ignorant of the social context, but their natural way of responding is primarily guided by their internal mindscape. Whereas a high self-monitor's cognitive system is more attuned to supporting their social performance and self-esteem, low self-monitors feel more strain over interpersonal situations (Hofmann, 2006; Tyler et al., 2016).

A constant need to monitor one's own behavior and stay aware of all self-aspects may lead to anxiety and an unbearable mental state. Over time, keeping up the normative or a desired image of oneself may culminate in an overly burdensome sensation, which forces the person to escape from the painful condition. Escaping one's own mind involves cognitive narrowing and forgetting about meaningful aspects of self, which essentially requires engagement in highly rewarding or painful behaviors. Escape theory (Baumeister, 1991) posits that people may use psychoactive substances, hurt themselves in a masochistic way, engage in binge-eating, resort to spirituality, or ultimately commit suicide when seeking relief from agonizing self-

awareness and self-evaluation. In addition to extreme measures, escape theory has been applied in explaining buying behavior in connection with excessive gambling and gaming (Savolainen et al., 2023).

Escaping the self represents negative escapism, which helps divert one's thoughts away from distress. Negative escapism involves activities that serve to make a person forget about real-life worries which can be of a situational or long-term origin. In addition to situational stress-coping (Carver & Connor-Smith, 2010), literature has identified anxiety (Bouriser et al., 2021), trauma (Holmes et al., 2023), adverse life events (Lee et al., 2012), guilt (Kalpokas, 2018), and boredom (Calleja, 2010) among negative mental states that may invoke escapist behavior.

Besides being described as a means of moving away from pain and anxiety, escapism may also be depicted as a movement towards the joyful and pleasurable side of life. Positive escapism refers to life-affirming, empowering, or rewarding activities (Kosa & Uysal, 2020; Kuo et al., 2016; Stenseng et al., 2021). An example of escapism based on positive premises would be the flow state identified by Csikszentmihalyi (2014). Flow is a deeply gratifying and involving state of intrinsic motivation where an individual is completely focused on the present task to the extent of losing self-consciousness. Stenseng et al. (2021) have developed a two-dimensional model of escapism applied to leisure activity context. The positively charged form of escapism is labeled self-expansion, and it builds on motives aspiring to achievements, self-development, well-being, and positive emotions. When used as a coping strategy, self-expansion escapism involves approach coping. By contrast, negative or self-suppression escapism strives to avoid difficult thoughts, processing tricky life-situations, or aspects related to selfhood. Both negative and positive escapism may be understood through the concept of action attention which involves three affordances: task absorption, temporary dissociation, and reduced self-evaluation, all contributing to the state of escapism (Stenseng et al., 2012).

The idea of self-expansion and self-suppression escapism is partly consistent with regulatory focus theory (RF<sup>T</sup>; Higgins, 1997, 2011) which maintains that people approach life situations with either a promotion or a prevention focus. A promotion-focused individual promotes nurturance needs and evaluates the situation at hand as a potential achievement towards life goals and ideals. By contrast, a prevention-focused person prioritizes security needs and views the situation as an obligation to be fulfilled or a risk to be avoided. According to RF<sup>T</sup>, applying a promotion or

prevention focus is situational and not dependent on personality (Brockner & Higgins, 2001; Lanaj et al., 2012; Scholer & Higgins, 2013).

Another important aspect to consider is the difference between escapism and coping, especially because the scientific debate has not reached a consensus about the limits of the two concepts (Melodia et al., 2022). Coping has been defined as a self-regulatory process particularly responding to stress and emotions (Compas et al., 2001; Lazarus, 2000) or as “ongoing cognitive and behavioral efforts to manage specific external and/or internal demands that are appraised as taxing or exceeding the resources of the person” (Lazarus, 1993, p. 237). Coping strategies have been typically divided into engagement coping and disengagement coping, where engagement coping represents a more active way of confronting and handling difficult life situations, emotions, or controversies. Disengagement coping involves distraction from real-life issues and worries, procrastination, or denial (Compas et al., 2001; Maroney et al., 2019; Melodia et al., 2022). Alternative terminology referring to the two principal coping methods includes problem-focused versus emotion-focused coping, approach versus avoidance coping, or adaptive versus maladaptive coping (Littleton et al., 2007). Both coping and escapism have been characterized as intentional activities that produce temporary relief (Giardina et al., 2023; Calleja, 2010). However, coping bears a closer link to a particular stressful situation, which influences the chosen approach (Lazarus, 1993). Escapism has been described as an intentional detachment combined with psychological immersion, engagement of fantasy, and avoidance behavior (Melodia et al., 2022; Caplan et al., 2009). Categorically speaking, coping refers to stress management one way or another, whereas escapism usually involves deeper psychological and social origins and consequences. A further examination of the meanings of the two concepts shows that “a coping strategy” may be more naturally associated with a means to an end, whereas the word “escapism” contains a stronger reference to a desired end state. Following this logic, the emphasis of coping studies is more meaningfully linked with alternating emotions and individuals’ responses to them. By contrast, the study of escapism focuses more on what lies beyond reality; what personal, psychological, and social factors predict escapism, and – in terms of the present study – where escapism potentially leads to. Finally, research suggests escapism can be situated on a continuum ranging from relaxation or emotion regulation to more severe forms of dissociation (Deleuze et al., 2019; Guglielmucci et al., 2019; Kosa & Uysal, 2020). To

the extent that escapism involves dissociation from reality, it must be regarded as a construct that is distinct from coping.

A conceptual distinction has been made between escape and escapism in the context of digital gaming, whereby escape stands for a unidirectional, definitive, and non-recurring movement from one place or mental state to another. Escapism, on the other hand, represents a two-way, potentially repetitive shift between the positions, and as such it denotes a milder transit that goes outside of reality and then back. Furthermore, escape and escapism are not defined as positive or negative, but escape is instead viewed as more rigid and less adaptive than escapism. The two concepts are thus treated as relatively stable rather than changing episodically (Calleja, 2010; Giardina et al. 2023).

Table 1 summarizes the theoretical frameworks for psychosocial responses and escapism models considered in this research. The overview shows a strong dualism across the theories suggesting that people engaging in high self-monitoring, approach coping, promotion focus, and positive escapism share similarities in their behavioral responses. This dimension has been labeled *engaged response style*. Likewise, low self-monitoring, avoidance coping, prevention focus, and negative escapism seem to share a conceptual resemblance, which is called *avoidant response style*. The idea of this framework is not to analyze mutual relations of the response styles, nor examine their links to addictions, but simply to map out their theoretical similarities and conceptual overlap with escapism.

Theory	Response Style		Author
	<i>Engaged</i>	<i>Avoidant</i>	
Self-monitoring	High	Low	Snyder, 1974
Coping	Adaptive Engagement Approach	Maladaptive Disengagement Avoidance	Lazarus et al., 1993 Compas et al., 2001 Littleton et al., 2007
Regulatory Focus Theory (RFT)	Promotion	Prevention	Higgins, 1997
Escape Theory	Self-acceptance	Self-obliteration	Baumeister, 1991
Escapism	Self-expansion Healthy Active Positive	Self-suppression Subversive Passive Negative	Stenseng et al., 2012 Kosa & Uysal, 2020 Kuo et al., 2016 Hagström & Kaldo, 2014

**Table 1.** Theoretical framework for psychosocial responses

The objective of this dissertation being the study of escapism as a predictor of addictive behaviors, it is reasonable to define escapism according to its negative or self-suppressive qualities according to the avoidant response style. There are several reasons why escapist motives for addictive behaviors should be understood as fundamentally negative. Firstly, doing something deeply immersive reportedly for hedonistic reasons does not mean that there were no underlying or unconscious negative drivers such as anxiety, trauma, or distress involved (Arnold & Reynolds, 2012; Daniels et al., 2021). Secondly, escapist fun may be the leading motive for taking drugs, drinking, gambling, or playing online videogames at the outset, but when the behavior turns into an addiction, the motive may still be escapist, although it will not be fun anymore. In terms of learning theory, it is reasonable to infer that during the first episodes of hedonistic behavior, escapism positively reinforces the rewarding feeling derived from the activity and urges towards repetition. However, once the behavior pattern has developed into an addiction, escapism increasingly starts to serve as a distraction from reality and a negative reinforcement for avoidance behavior (Eissenberg, 2004; Macpherson et al., 2012). Thirdly, positive escapism has been shown to be theoretically and empirically unstable, and research has also reported stronger connections between negative escapism and psychological distress and life satisfaction than the positive aspects of escapism (Hagström & Kaldo, 2014). Furthermore, the distinction between a permanent, unidirectional escape and a more adaptive, bidirectional escapism as proposed by Giardina et al. (2023) does not optimally apply to an addiction context where motivation typically fluctuates over time. For these reasons, in this dissertation, escapism stands for a single construct of negative escapism.

## 2.3 Self-determination theory

Acknowledging the incoherence of previous escapism literature and the lack of standardized approach, it is necessary to combine the study of escapism with a broader theoretical framework that goes beyond individual response styles. While RFT provides a logical differentiation between a promotion and a prevention focus on human behavior, it has significant shortcomings from the standpoint of addiction

and escapism research. RFT is strongly related to the situational context, and it does not consider personality traits or other more permanent predictors of escapist activity. Moreover, promotion and prevention focus tend to change depending on ethnicity and acculturation processes, thus making RFT inconsistent across cultural contexts (Levinson & Rodebaugh, 2012; Lalwani et al., 2009).

Among the theories of social psychology, self-determination theory (SDT; Deci & Ryan, 2011; Ryan & Deci, 2000, 2017) provides an extensive theoretical framework on motivation and personality. SDT encompasses the role of social contexts and innate human resources for psychological growth, integrity, and well-being. Over time, SDT has been developed into several subtheories, one of which is called basic psychological needs theory (BPNT). Scientific evidence supports the basic tenet of BPNT that universal psychological needs of autonomy, competence, and relatedness must be satisfied in order to secure healthy development and functioning (Baard et al., 2004; Deci & Ryan, 2011). Autonomy has been defined as an internal perceived locus of causality, effectively meaning that autonomous individuals make their own decisions, genuinely have a choice between different options, and feel they are in control. Competence refers to perceived ability to perform tasks and complete them effectively, and the need for relatedness represents a sense of belonging and having meaningful human relationships.

The deep ties between SDT and motivation theories further emphasize its suitability in the research of escapism and addictions. Intrinsic motivation originates from the self-authored and personal goals and aspirations of an individual, whereas an extrinsic motivation refers to duties that have been assigned externally. Intrinsically motivated people act out of their personal values and are more likely to devote themselves to the tasks at hand and pursue objectives relentlessly. The performance of extrinsically motivated individuals is more responsive to cost-benefit analyses and externally defined rewards (Ryan & Deci, 2000). It has also been noted that extrinsic motivation may stimulate the human body to adapt and self-regulate based on its homeostatic needs. In contrast, intrinsic motivation would condition the human biological system to rely more on long-term consequences and conscious decisions (Baldassarre, 2011). From this perspective, both intrinsic and extrinsic motivation could be seen as contributing to the interplay of escapist motives and addictive behavior.

Due to its influence on the explanation of the underlying motives of human behavior, SDT is well-suited to support research involving escapism and addictive

behaviors. Additionally, evidence has shown that the needs for autonomy, competence, and relatedness are relevant for individual well-being across cultures (Chen et al., 2015; Haw & King, 2022; Wang et al., 2024; Yu et al., 2018), age groups, and socioeconomic status (SES) (Lataster et al., 2022; Rodríguez-Meirinhos et al., 2020). Frustration of basic psychological needs may lead to feelings of alienation, insignificance, and powerlessness, much as environmental factors such as technological predominance, social fragmentation, and globalization affect people from the outside (Alexander, 2022; Putnam, 2000). SDT provides a psychological account of the factors that expose people to adverse motivation and behavior patterns, in this case, escapism.

The first part of the theoretical review focused on the origins and significance of escapism in the context of contemporary life. The next sections will turn to the topic of addiction, introducing alternative and complementary approaches to the concept, observing several influential theoretical models, and leading to a working definition of addiction. The literature section of this dissertation will conclude with an integrated theoretical framework to describe escapism in connection with addictions. Finally, before moving on to the research section, essential public health aspects of addictions will be considered.



## 3 ADDICTION AND ADDICTIVE BEHAVIORS

Giving a comprehensive and unequivocal definition of addiction is challenging in an era that seems to generate addictive behavior in many varieties (Alexander, 2022). The concept is used rather loosely in everyday language, with the consequence of labeling activities like eating tasty foods, shopping, exercising, or watching TV series as addictions, although the official health data classifications do not recognize them as such. Another challenge for a consistent concept of addiction is the multi-faceted nature of the phenomenon. Different scientific domains have their own theories and subtheories of addiction, to the extent that it may not be meaningful to strive for an all-encompassing definition of the concept at all (Kelly et al., 2022). For scientific accuracy, this dissertation adheres to language supported by research.

### 3.1 Biopsychosocial view of addiction

In scientific literature on addiction, the idea of a biopsychosocial view of addiction is increasingly gaining support (Griffiths, 2005; Hammersley, 2022; Masiak, 2013). To provide sufficient background for a logical examination of addiction concept, the biological, psychological, and social elements are briefly addressed below.

The biological scope of addiction includes genetic, neuroscientific, and physiological factors. Evidence has shown that addictions are linked to genetic background, from findings on high heritability and increasingly accurate identification of genes associated with addiction (Edwards et al., 2009; Hall et al., 2013). Genetic vulnerability to addictions is normally multi-factorial and involves interaction with psychological or environmental factors, indicating that addictions cannot be explained by genetic proneness alone (Bettinardi-Angres & Angres, 2010; Hall et al., 2022; Kovac, 2013; Turton & Lingford-Hughes, 2024; Trucco et al., 2018).

The neurobiological foundation of addiction is related to the brain reward circuit, which produces a sense of pleasure by secreting neurotransmitter dopamine when it detects activities related to survival, such as eating, having sex, or interacting with

other people (MacNicol, 2017). Psychoactive substances cause a similar and oftentimes more intense pleasurable effect on the brain via their pharmacological properties. Another way to conceptualize addiction in the brain is as a three-stage cycle that includes binge/intoxication, withdrawal/negative affect, and preoccupation/anticipation (Kwako & Koob, 2017). Again, the dopaminergic system cannot be treated as a panacea for explaining addictions, nor can the significance of dopamine be generalized across addictions (Nutt et al., 2015; Potenza, 2013, 2018).

The physiological factors typically associated with addiction are tolerance and withdrawal. Repeated use of a psychoactive substance or engagement in addictive behavior leads to the need for increased doses or exposure to reach the desired effect. If someone is in a dependent state, physiological withdrawal symptoms arise if access to the source of addiction is abruptly deprived (Christie, 2008; Eissenberg, 2004; Turton & Lingford-Hughes, 2024). While tolerance and withdrawal are considered logical features of substance addictions, findings related to their applicability to behavioral addictions are mixed (Lee et al., 2020; Rosenthal & Lesieur, 1992; Starcevic, 2016).

Psychological motives for addiction may involve developmental and psychopathological problems (Masiak, 2013) or a desire to shift consciousness or change the subjective experience of the self with the help of rewarding substances or behavior (Larkin & Griffiths, 2002; Larkin et al., 2006). As a matter of categorization, an excessive search for hedonism, for example, when an individual is compulsively seeking pleasure or relief by consuming psychoactive substances or engaging in other appetitive activities such as gambling, gaming, sex, etc., may be connected to psychological as well as biological origins. Another psychological feature of addiction, loss of control, refers to the inability to stop or reduce a behavior despite adverse consequences, and it has been studied as a self-regulation failure with underlying emotional controversies (Baumeister et al., 1994).

The social determinants of addiction are related to environmental factors on multiple levels. Individual experiences of family, diversity, or social justice (Masiak, 2013) may produce a sense of insufficient nurture (Green et al., 2021; Niv, 2007). Past research has linked addiction to loneliness (Wang & Zeng, 2024), trauma (Dalbudak et al., 2014; Evren et al., 2006; Hodgins et al., 2010; Teusch, 2001), and feeling incomplete or uncomfortable (Evren et al., 2009).

In accordance with the biopsychosocial view, addictions develop through a combination of factors, with no single element alone being able to explain the developmental and operational process of addiction. However, to further help define addiction, it is meaningful to consider the criteria for substance use and other addictive disorders, as specified by the leading disease classification systems.

### 3.2 Addiction as a disease

The category of substance-related and addictive disorders was redefined for the DSM-5, which comprises 11 symptoms used to diagnose substance use disorders (SUDs). The relevant symptoms to consider include hazardous use, using larger amounts or longer than planned, amount of time spent using, craving, social or interpersonal problems related to use, neglected major roles to use, tolerance, withdrawal, physical or psychological problems related to use, activities given up instead of use, and repeated attempts to quit or control use (Hasin et al., 2013). SUD diagnoses are classified on a continuum based on the number of criteria fulfilled: mild SUD: positive on 2–3 criteria; moderate SUD: positive on 4–5 criteria; severe SUD: positive on 6 or more criteria, for all classes over a 12-month period (APA, 2013; Hoffmann & Kopak, 2015). The DSM-5 category of substance-related and behavioral addictions includes gambling among behavioral addictions, whereas internet gaming disorder (IGD) has been nominated to need further investigation, a position supported by recent research (Chang et al., 2023). Other addictive behaviors such as sex, shopping, and exercise are not included in the DSM-5 but are monitored as more research evidence is accrued (Potenza, 2014).

The ICD-11, for its part, includes a section, “Disorders due to substance use and addictive behaviors,” with separate categories for Disorders due to substance use and Disorders due to addictive behaviors. Unlike the DSM-5, the ICD-11 category for Disorders due to addictive behaviors includes both gambling disorder and gaming disorder, with subcategories of predominantly online and offline contexts, respectively (WHO, 2022). The ICD-11 also includes diagnoses for a single episode of harmful psychoactive substance use, a harmful pattern of psychoactive substance use, and a severity scale for intoxication. By contrast, the DSM-5 does not measure SUD in terms of harm caused to self or others (Matone et al., 2022). The definition used by the WHO is more so based on a diagnostic dimension: “Disorders due to

substance use and addictive behaviors are mental and behavioral disorders that develop as a result of the use of predominantly psychoactive substances, including medications, or specific repetitive rewarding and reinforcing behaviors” (WHO, 2024, para. 1).

According to the brain disease model of addiction (BDMA), “addiction is actually a chronic, relapsing illness, characterized by compulsive drug seeking and use . . . [and] a consequence of fundamental changes in brain function” (Leshner, 1997, pp. 45–46). The definition adopted by the American Society of Addiction Medicine (ASAM, 2019, para. 2) aligns with the disease approach, although it includes a more comprehensive set of drivers: “Addiction is a treatable, chronic medical disease involving complex interactions among brain circuits, genetics, the environment, and an individual’s life experiences. People with addiction use substances or engage in behaviors that become compulsive and often continue despite harmful consequences. Prevention efforts and treatment approaches for addiction are generally as successful as those for other chronic diseases.”

BDMA explains the origins and endurance of addiction primarily with the help of disruptions in neural mechanisms. By memorizing the pleasure-inducing sequence through associative learning and conditioning, the brain’s reward regions start to prioritize the same rewarding activity, which ultimately develops towards compulsive behavior (Volkow et al., 2016). Informed debate around addiction has compared the addicted state of the brain to a malfunction, where the brain reward circuit has been hijacked (Levounis, 2016). Brain imaging technology has shown how disturbed dopamine balance modulates brain functioning and contributes to the onset and persistence of addictions (Lauretani et al., 2024; Volkow et al., 2009).

Incentive-sensitization theory of addiction (IST; Robinson & Berridge, 1993) supports BDMA by emphasizing the role of contextual cues. IST posits that repeated substance use or engagement in other appetitive activity sensitizes the brain to behavior-related stimuli, leading to progressive and enduring neuroadaptations. The brain areas responsible for managing the motivation and pleasure parts of behavior can function independently from one another. Motivation representing the “wanting” is driven by brain dopamine systems, whereas a sense of pleasure, or the “liking,” is mediated by other brain circuits. During addiction development, motivation may be excessively intensified without necessarily affecting the pleasure side of brain function. As the motivation part of the brain is overly sensitized to dopamine-eliciting cues, the cycle leads to continued engagement in addictive

behavior without a corresponding pleasure response (Berridge & Robinson, 2016). In addition, computational research has suggested that dopamine has a reinforcement learning effect (Huys et al., 2016).

Another point of view regarding the neurobiological origins of addiction is provided by the reward deficiency syndrome (RDS; Blum et al., 1996, 2022). The model suggests that several addictive and compulsive behaviors may have a common genetic basis. These include substance abuse, pathological gambling, binge eating, obesity, attention-deficit disorder, and Tourette's syndrome. According to the model, an individual with RDS is unable to sense pleasure and rewards in a typical manner. To compensate for low dopamine levels, they need external stimuli and are motivated to engage in addictive behaviors.

Additional research on the dopaminergic system has shown that once a rewarding behavior has induced a dopamine peak in the nervous system, a corresponding collapse in the level of dopamine follows, leading to a negative emotional state (Lembke, 2021). This is consistent with opposite-process theory of motivation (Solomon & Corbit, 1978), which states that every intensive primary affect is followed by an opposite after-reaction that passes more slowly than the initial peak experience. Moreover, repeated exposures to the primary stimulus weaken the initial rewarding feeling and lengthen the after-reaction, providing a pertinent example of the diminishing effect of substance use, growing tolerance, and craving.

The neurobiology of addiction is not merely a passive biochemical process. The impaired response inhibition and salience attribution (I-RISA) model of addiction (Goldstein & Volkow, 2002) emphasizes the role of the prefrontal cortex and higher-order cognitive functions in the neurobiological basis of addiction. Evidence has shown how cortical activity gets compromised along with continued substance use or addictive behavior, leading to impaired ability to inhibit craving (Bechara, 2005; Dong et al., 2015; Goldstein & Volkow, 2011).

The syndrome model of addiction maintains that all addictions and addictive states have a common etiology. According to the model, the neurobiological reward pathway does not differentiate between separate addictions, nor does genetic predisposition target specific types of addiction. The syndrome model depicts addiction as a process in which a person moves from the antecedents of the addiction syndrome to a premorbid state and eventually to detectable expressions of addiction. In addition to genetic and neurobiological risk factors, the antecedents include psychosocial elements and repeated exposure to addictive substances or

behaviors (Shaffer et al., 2004). Apart from its disease-centricity, the syndrome model provides a versatile approach to the study of addictions, combining the neurobiological and psychosocial aspects of the phenomenon.

Over the past decades, BDMA has arguably become the most influential model in advocating treatment interventions, public health policies, and the general perception of addictions (Volkow et al., 2016).

### 3.3 Addiction beyond disease

Despite its dominance, BDMA has been criticized for medicalizing the concept of addiction and being unable to explain what causes the brain changes in the first place or how the brain changes in addiction differ from those caused by other conditions or experiences (Lewis, 2022; Maté, 2022; Satel & Lilienfeld, 2014; Vrecko, 2010). Moreover, disruptions in neural mechanisms should not be equated with a total loss of self-control capacity. Instead of a pathology, addiction may represent a learned and rational response to circumstances (Alexander, 2022; Lewis, 2022; Satel & Lilienfeld, 2014). It has been argued that some of the animal models supporting BDMA do not translate to human subjects (Hall et al., 2022). Moreover, evidence on BDMA is typically based on samples consisting of gravely addicted individuals, which makes it hard to generalize the results to the overall population (Hammersley, 2022; Satel & Lilienfeld, 2014). In contrast with the chronic disease aspect, most people who at some point fulfill addiction criteria recover without professional help, and the treatments and public policies advocated by BDMA leave room for improvement (Hall et al., 2022; Lewis, 2022). Those undergoing a more profound healing will need to reconstruct their self-image and confront themselves honestly and humbly through a process that has very little to do with BDMA, suggesting that psychological and social aspects offer more practical tools for addiction treatment (Lewis, 2022, Satel & Lilienfeld, 2014). Criticism also implies that BDMA would not be suitable for predicting human behavior and that it should rather be called a disorder than a disease model (Satel & Lilienfeld, 2014).

This dissertation subscribes to BDMA only partially and prefers a disorder-based approach to addiction over disease-driven thinking. However, with or without a disease label, the biopsychosocial model views addiction as resulting from a combination of brain activity, environmental factors, the human psyche, and the

activity itself (Griffiths, 2005). Likewise, it is possible to adopt a treatment perspective or a motivational approach to the subject. As regards the conceptual boundaries of addiction, existing studies suggest that more research is needed, especially to set sustainable limits to the concept of behavioral addictions. While seeing different types of excessive behaviors through the addiction framework may help understand them more clearly, pathologizing any frequent behavior pattern would not be appropriate (Kardefelt-Winther et al., 2017; Sinclair et al., 2016).

The literature shows that many different types of excessive behaviors share similarities (Leshner, 1997; Orford, 2001; Punzi & Fahlke, 2015; Shaffer et al., 2004). The components model of addictions (Griffiths, 2005) argues that all addictions involve salience, mood modification, tolerance, withdrawal symptoms, conflict, and relapse, which are considered fundamental elements of addiction in the biopsychosocial context. An optimal addiction theory would provide an interface between the biological, psychological, and social aspects and combine it with a process. While it may not be feasible to strive for a universal theory, balanced attempts have been made to conceptualize integrative models, such as the interaction of person-affect-cognition-execution (I-PACE) model for internet use disorders (Brand et al., 2016) or the multi-sourced model of addiction (Kovac, 2013). The models consider to a varied extent the individual predisposing elements, such as genetic background, personality, other biological determinants, nurture, and environmental factors, and combine them with the development of the addiction process. An important contribution to the process view of addiction has been offered by Maté (2022, p. 432): “Addiction is a complex, psycho-physiological process that is manifested in any behavior in which a person finds short-term pleasure or relief and therefore craves; from which they suffer long-term negative consequences, whether physical, mental, social, or economic; which they are reluctant or unable to give up despite negative consequences; and which, on suddenly ceasing, leaves them with intense craving, irritability, and dissatisfaction.”

A critical stage in viewing addiction as a process relates to decision-making and its motives. The dual-process approach to decision-making (Evans & Stanovich, 2013; Sloman, 1996) applied to addictive behaviors essentially asks whether engagement in risky behaviors happens through reasoned or less reasoned action. Evidence suggests that analytical decision-making seems to explain health-promoting behaviors, but engagement in risky or socially unacceptable behaviors is more often a result of an intuitive decision (Gerrard et al., 2008) or, at best, a

combination of reflective and impulsive processes (Schiebener & Brand, 2015). Reliance on intuition typically means using heuristics, affects, reflexivity, or only superficial elaboration to reach a decision. As the decision-making of addicted individuals is exposed to delay discounting (Lewis, 2022) and intuitive decision-making processes are more dependent on contextual cues (Croskerry, 2009), it is reasonable to assume that many decisions concerning addictive behaviors are taken based on an intuitive rather than an analytical process. Previous literature has also described addiction as a cycle with strong impulsivity driving initial behavior, such as drug uptake, and an onset of compulsive functions when withdrawal and preoccupation take over (Koob & Volkow, 2010; Lewis, 2022). From a habit-forming perspective, addictive behavior is amplified by both positive and negative reinforcement (Kurth-Nelson & Redish 2012; Ngetich et al., 2024).

Defining addiction also relates to the discourse and values, power relations, hierarchies, and social aspects the concept conveys. Addiction as a mental state is typically defined against what is normal, and as such, it represents a deviation from what is regarded as a natural or regular situation (Kuusisto et al., 2021). It has also been questioned whether a meaningful definition of addiction can be found at all considering the changing perceptions and limits with other concepts, such as compulsions (Sussman & Sussman, 2011). Considering the semantic debate, building on the biopsychosocial premises, and taking note of the disease and process models of addiction, it is possible to narrow down the definition task for the purposes of this dissertation.

### 3.4 Working definition

This dissertation falls under the domain of social psychology, and it addresses the relationship between addictions and escapist motives. In the present context, the definition of addiction emphasizes a motivational element in connection with the biopsychosocial view of addiction. Motivation is goal-directed behavior stemming from internal or external stimuli, and it involves choice, control, and intention (Power & Starkstein, 2013). The plans, responses, impulses/inhibitory forces, motives, and evaluations (PRIME) model of motivation (West & Brown, 2013) is an integrative theoretical framework for the human motivational system that consists of five nested subsystems: the primal level of behavioral motivation after planning is



a reflexive response, followed by impulsive action, motivation, and evaluation, each stage involving more elaboration of the behavior and its consequences than the preceding one. Deeper insight and planning are possible at the levels of motivation and evaluation. The motivational system constantly receives stimuli from both human memory and ongoing external events, highlighting the psychosocial origin of behavioral motives. The motivational system of an addicted individual has been disturbed, as the interaction between planning, evaluation, and motivation does not work properly (Wanigaratne, 2006; West & Brown, 2013). Moreover, persistence of the addiction has been found to be a consequence of motivational failure (Satel & Lilienfeld, 2014).

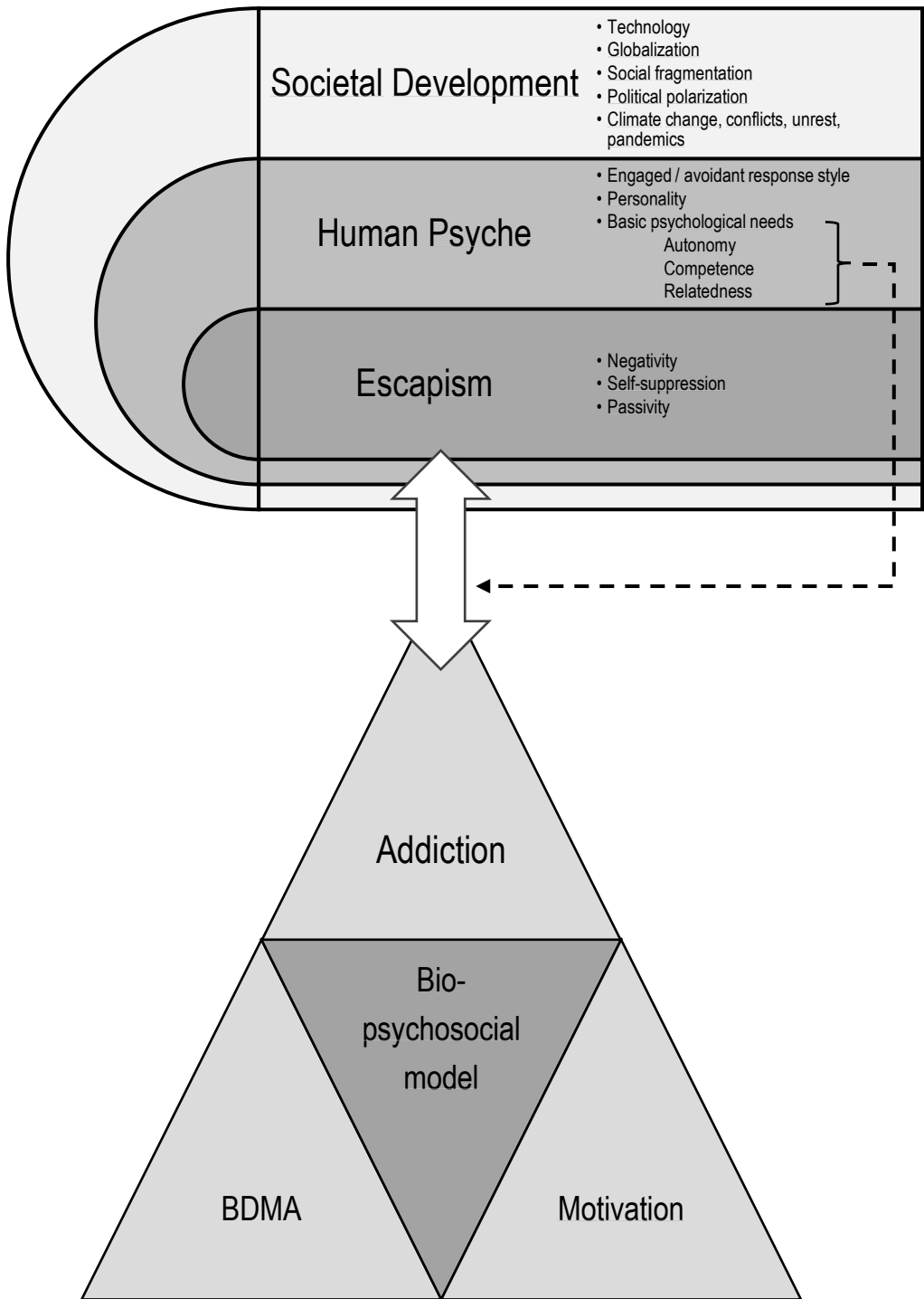
For this work, an operational definition of addiction should cover motivation, biopsychosocial, and process components. From the existent literature, a definition by West and Brown (2013, pp. 15–18) stands out for its extensive groundwork and emphasis on the motivation aspect: “Addiction is a chronic condition involving a repeated powerful motivation to engage in a rewarding behavior, acquired as a result of engaging in that behavior, that has significant potential for unintended harm. Someone is addicted to something to the extent that they experience this repeated powerful motivation.” To incorporate the biopsychosocial nature of addiction into the definition, an additional perspective was considered: “Addiction is a complex biological, psychological, and social disorder that needs to be addressed by various clinical and public health approaches” (Hall et al., 2015, p. 109; see also Carter & Hall, 2011). These two definitions and Maté’s (2022) process view were used to formulate a working definition of addiction for the present research. Some adjustments were made to allow for a more flexible application outside of diagnosed and medical conditions. A more general expression, “motivation system,” was chosen instead of “brain disease” or “brain reward circuit.” Moreover, the difficulty of overcoming addictions was further emphasized. For this dissertation, the following working definition of addiction will be used: “Addiction is a complex, biopsychosocial process that is manifested as a chronic disturbance in the motivation system, whereby an individual loses control over rewarding behavior partially or entirely and feels unable to stop or reduce the activity despite adverse consequences.”

The second part of the literature section has laid out the theoretical basis of addiction used in this dissertation. Without being anchored to any single addiction theory, this research draws on several models and, in so doing, recognizes the

common etiology and overlapping nature of different addictions and their shared mechanisms. The current work avoids strict opposition between disease and non-disease models, but it predominantly builds on the biopsychosocial view of addiction while incorporating essential elements from BDMA. Spiritual and moral addiction theories are outside of this dissertation's scope.

### 3.5 Integrated theoretical framework

The integrated theoretical framework of this dissertation is outlined in Figure 1. Influences arising from societal development and the human psyche provoke escapism. Escapism is viewed as a negative construct based on avoidant response style, and addiction is examined through the biopsychosocial model acknowledging BDMA but building on a broader view beyond disease. An analysis of the relationship between escapism and addiction will also observe the potential moderating effect of basic psychological need frustration as shown by the dotted line.



**Figure 1.** The integrated theoretical framework

### 3.6 Addictions in the context of public health

The addictions covered in the original articles upon which this dissertation is based include alcohol consumption, smoking, drug use, gambling, and digital gaming. Additionally, excessive internet use is included in the models because of its addictive qualities, but as it has no formal diagnosis, its public health implications are not considered in this section. Addictions classified in the frameworks of the DSM-5 and the ICD-11 impact personal well-being and health, and to fully comprehend the need for continued research, it is essential to determine their consequences and effects on society as a whole. This section takes a look at the public health aspects of substance use, gambling, and digital gaming, and it discusses respective policy choices.

Alcohol as a legal substance continues to be the leading intoxicant among populations and a primary cause of substance use disorders. An estimated three million deaths were attributed to alcohol use in 2016, an equivalent of 5.3% of all fatalities worldwide (Global Burden of Disease [GBD] 2016 Alcohol and Drug Use Collaborators, 2018; Shield et al., 2020). Alcohol consumption is the most important risk factor for premature death in people younger than 40 years of age. Alcohol is linked to over 200 diseases, including cancers, diseases in the cardiovascular system, liver, and other internal organs, and mental disorders (Rehm et al., 2021). The highest burden of alcohol-related diseases has been found in Eastern Europe and in countries with a low human development index. Even though total consumption in the past few decades has been decreasing in Europe, where alcohol per capita consumption is the highest in the world, drinking in many parts of Asia and sub-Saharan Africa has increased (Shield et al., 2020). It is notable that significant differences in the alcohol-attributable burden of disease can be found among countries with high living standards. In a comparison of the Nordic welfare states in 2013, it was found that the age-standardized disability-adjusted life years (DALYs) attributed to alcohol were 1,567 per 100,000 in Finland, whereas Sweden recorded 950 per 100,000 and Norway recorded 698 per 100,000. DALY comprises years of life lost (YLL) due to premature deaths and years of life lived with disability (YLD) (GBD 2016 Alcohol and Drug Use Collaborators, 2018). Furthermore, the social and health consequences are unevenly spread among populations. In terms of demographic differences, men drink almost four times more than women, with the highest consumption rate in the age group of 35–49-year-olds of both sexes (Rehm

et al., 2021; WHO, 2023). Paradoxically, people with lower SES are exposed to more alcohol-related harms than individuals with higher SES, even though people with higher SES drink more often and consume larger quantities (Collins, 2016).

Smoking is among the top contributors to the global disease burden, accounting for 5.7% of the total DALYs (GBD 2021 Risk Factors Collaborators, 2024). Tobacco use and smoking have been regulated globally, and the levels of smoking have declined due to increased consciousness of health risks (Lee et al., 2023). Since 2000, tobacco use has declined by 30% among 15-year-olds and older, although the rate of positive development slowed down from 2010–2020 (WHO, 2023). Currently, exposure to tobacco either directly or by passive smoking causes an estimated eight million deaths worldwide. Smoking multiplies the risk of stroke, heart disease, lung cancer, and chronic obstructive pulmonary disease, and it increases the risk for several other cancers and medical conditions. There are almost five times more male than female tobacco users in the world, and smoking is much more commonplace among people with lower SES than those in wealthier groups (Bettcher et al., 2021, WHO, 2023). While the tobacco industry introduces new products like electronic nicotine delivery systems and oral nicotine products to more health-savvy consumers, commercial promotion of cigarettes still continues in low- and middle-income countries. Moreover, reduced toxicity does not make tobacco and nicotine products harmless, as they still preserve their addictive potential, inducing sustained use (Bettcher et al., 2021; O'Connor et al., 2022). Preventing adolescents and new users from developing nicotine addiction remains a challenge in an environment with new methods of use, high nicotine content, and changing social acceptability (Ferkol et al., 2018).

Data from 2021 indicate that approximately 296 million people used drugs globally, an increase of 23% from a decade earlier. There were 13.2 million people who engaged in intravenous use. Drug use disorders were assigned to 39.5 million people worldwide, with only 20% receiving drug treatment, and 128,000 deaths were linked to drug use disorders (United Nations Office on Drugs and Crime [UNODC], 2023). Victims of drug-related deaths are relatively young people, especially young adults, although regional variance may occur (Carfora et al., 2020; Rönkä et al., 2017). In addition to overdose and poisoning, the health risks of drug use include hepatitis C virus, human immunodeficiency virus (HIV), and other infections and injuries, as well as the exacerbation of underlying illnesses. In 2021, 6.6 million people were living with hepatitis C, 1.6 million with HIV, and 1.4 million with both conditions.

Moreover, injection use exposes users to additional conditions, such as septicemia or nerve damage. Liver disease caused by hepatitis C accounts for more than 50% of all drug-related deaths, while overdose represents around 25% of deaths (UNODC, 2023). In addition to overdose, imminent drug-induced deaths are increasingly connected with polydrug use, where opioids are typically taken together with tranquillizing medicines and alcohol (European Union Drugs Agency [EUDA], 2024). It is notable that the highest drug-related burden of disease has been measured in North America. Indeed, drug use typically causes more disease burden in high-income countries than in low-income countries where the alcohol-attributable disease burden is more substantial (GBD 2016 Alcohol and Drug Use Collaborators, 2018). Also, although there are important regional differences that exist in terms of leading substances, available policy measures, and treatment resources, it is opioids that overall generate the highest burden of disease while amphetamine-type stimulants and cannabis are seen as major risks for drug use disorders (UNODC, 2023). Socially responsible drug policies require the availability of opioid replacement therapies, syringe exchange programs, treatment with timely access, and harm reduction activities (EUDA, 2024). Evolving patterns of drug consumption call for updated social and health policy measures, such as supervised drug consumption facilities, comprehensive naloxone prescriptions, and substance recognition. In Europe, some governments have initiated programs for these services, while the debate is still ongoing in many countries.

Multiple simultaneous developments in drug use strain social and healthcare systems around the world. The availability of a broader range of illicit drugs raises concerns, as almost everything with psychoactive properties can be used as a drug. Novel substances with only limited user experience and knowledge may have unexpected effects and lead to unintended consequences (EUDA, 2024). The number of new psychoactive substances on the market increased from 162 to 618 from 2010 to 2021. At the same time, the variety of injectable drugs is also increasing; while heroin used to be the most common intravenous drug, a wide range of psychoactive substances, medicines, stimulants, and opioid substitution products are currently being injected. In addition, new ways of drug administration, such as vaping or edible forms of substances, have become available, while extremely potent synthetic opioids like fentanyl derivatives and nitazene opioids have made their way to the market, placing increasing numbers of people at risk. Finally, mobile technology has enabled the distribution of drugs and makes them available

irrespective of time and place. Regardless of the ease of ordering and delivery, the entire supply chain of drugs is illegal, and it involves all the participants in criminal activity, thus potentially threatening their personal safety. Gang violence and recruitment of minors to the local drug trade have created cause for concern internationally (EUDA, 2024; UNODC, 2023).

Despite apparent health hazards with high rates of mortality and morbidity, the prevalence of substance abuse and smoking remains significantly high, taking into account geographical and SES differences. From a regulatory perspective, alcohol, with its harmful health consequences, has become a leading addictive substance without a legally binding international regulation compared to drug prohibition laws and the WHO Framework Convention on Tobacco Control (WHO FCTC) (Luty, 2016; WHO, 2023).

Gambling was the first nonsubstance-based activity to reach the status of a behavioral addiction. Problematic gambling affects a growing number of people and families, with serious adverse consequences to social and economic well-being and health (Kourgiantakis et al., 2013). An estimated 1.41% of the global adult population suffer from problematic gambling, and 8.7% practice risky gambling (Tran et al., 2024), while among adolescents, problematic gambling involves 1.7%–2.2% of the underaged population (Giralt et al., 2018). It has been estimated that a problem gambler affects six others by causing emotional and financial anxiety (Goodwin et al., 2017). Gambling disorder is a serious health condition with high comorbidity, particularly with substance use disorders and mood disorders, which is why services for the treatment of gambling addiction should be made available with a sufficient focus on psychiatric comorbidities (Hodgins & el-Guebaly, 2010; Wullinger et al., 2023). Furthermore, evidence has shown that problem gamblers have a significantly higher suicide risk compared with the general population (Wardle et al., 2020). Problem gambling has been especially associated with online casinos and slot machines (Tran et al., 2024), a fact that may cause further trouble when the regulation of gambling markets is being challenged by digital gambling platforms. As governments around the world are passing new gambling legislation, they should secure adequate resources to limit gambling harm and create addiction prevention and treatment policies instead of simply focusing on reasonable tax revenue (Günay, 2023).

Whereas the concept of addiction may have become general knowledge via substance abuse, the most rapidly expanding addictive behaviors in the past few

decades have been those provided through digital platforms (Aragay et al., 2024). There are an estimated three billion regular digital gamers globally, with 3%–6% of the population reportedly fulfilling the ICD-11 or DSM-5 criteria for gaming disorder (Saunders et al., 2024). IGD seriously impairs functioning in important areas of life, such as education, work, social activities, and family, and problematic gaming has been associated with psychiatric comorbidities such as anxiety and depression (Coutelle et al., 2024; Imataka et al., 2024). Immersive virtual gaming environments engage the most eager gamers in devoting substantial amounts of time, for example, up to 35 hours a week, for playing digital and online games (Wack & Tantleff-Dunn, 2009), while daily gaming time of 1–2 hours among adolescents might be considered typical (Salmensalo et al., 2024; Simons et al., 2014). Gaming activity seems to be attracting ever larger audiences as the convergence of gaming and gambling provides further incentive for eventual prizes and instant gratification in the digital sphere (Delfabbro & King, 2023; Oksanen et al., 2024). The gaming business has been among the fastest growing industries in the past few decades, and it has continued to show a rising trend (Palma-Ruiz et al., 2022; Zackariasson, 2013).

When considering the external drivers of addictive behaviors, it is easy to see the leading role of technology in introducing more and more exciting digital content to applications, be it gambling, gaming, social media, news outlets, or streaming entertainment. The business model and user logic behind consumer technology services, which are largely built on continuous engagement, encourage repetitive use and excessive online behaviors (Laurence et al., 2023; Rapp, 2022). Technology also affects the marketing and distribution of drugs by providing anonymous messaging applications and dark web sites for trading illegal substances (Bergeron et al., 2022). Apart from criminal legislation, there are no official market mechanisms or public policy tools to control the demand for drugs.

Compared with technology-driven forms of addictive behaviors, an interesting difference can be observed regarding the demand for legal substances, such as alcohol and tobacco, which is largely determined by policy decisions such as availability and price (Kostova et al., 2011; Mangeloja & Pehkonen, 2009; Nargis et al., 2021; Stockwell et al., 2012). In fact, market regulation and tax rates have become useful instruments for the public power to control the harmful consequences of alcohol use and balance the public economy (Stockwell et al., 2020). From the point of view of addictions, technological development and digital innovations stand out as key enablers and catalysts of digital gambling and gaming, as well as drug use. In



contrast, external factors promoting or constraining drinking and smoking are mainly based on policy decisions that determine availability and price.

The environmental or external factors contributing to the development of addictions are certainly not limited to technology and health policies. The general education level, literacy, computer skills, internet coverage, standard of living, purchase power, social cohesion, and cultural differences may all have an indirect effect on the development of addictive behaviors. It would be overly simplistic to claim that addictions are only associated with external factors in our environment. To say that addictions were completely endogenous would be equally questionable. These aspects provide further arguments for choosing the biopsychosocial view of addictions as the founding approach used in this dissertation.

### 3.7 Existing research and knowledge gaps

Escapism has been identified as a risk factor for several addictive behaviors. In recent years, the study of escapism has especially focused on problematic digital gaming and internet use, although earlier research shows connections between escapism and problematic gambling as well as evidence on escapist substance use.

Escapism has a strong association with problematic gaming and IGD across age groups and cultural contexts (Bäcklund et al., 2022; Kwon et al., 2011; McCauley et al., 2017; Ropovik et al., 2023; T'ng et al., 2022; Wu et al., 2017), albeit stronger connections have been reported in individualistic regions (Wang & Cheng, 2022). In IGD or gaming disorder, a person has impaired control over online or offline digital gaming and may continue or increase gaming despite adverse consequences for personal, social, occupational, or other areas of life. A formal diagnosis normally requires that the symptoms persist for at least 12 months (Feng et al., 2017; WHO, 2022). In addition to being a robust predictor of IGD, escapism mediates the relationship between aversive psychological states, such as loneliness, anxiety, self-concept, distress, or basic psychological need frustration, and IGD (Bányai et al., 2019; Melodia et al., 2022; T'ng et al., 2022). Overall, escapism correlates with adverse outcomes in mental health, social well-being, and gaming (Marques et al., 2023). In terms of online behavior in a more general sense, the connection between

escapism and problematic internet use has also been established in past studies (Koo & Kwon, 2014; Ohno, 2016).

Extensive evidence from studies and meta-analyses indicates that escapism is associated with problematic gambling, even when the effects of monetary gain motives and other avoidance behaviors are controlled (Alaba-Ekpo et al., 2024; Flack & Morris, 2015; Neophytou et al., 2023). Harmful gambling involves diverse terminology and levels of severity. Problematic gambling typically entails spending increasing amounts or more money on gambling than one can afford, being preoccupied with gambling, and devoting time and energy to gambling at the cost of other roles and obligations of life. Gambling disorder refers more specifically to diagnostic criteria such as persistent or recurrent patterns of gambling despite the apparent harmful consequences to self and others over the previous 12 months. Gambling disorder may be continuous or episodic and is partly or fully uncontrolled (Fabiansson, 2010; Ferris & Wynne, 2001; WHO, 2022). Moreover, escapist motives have been recognized in connection with problematic gambling in the general population (Nower & Blaszczynski, 2010), among adolescents (Gupta & Derevensky, 1998), within vulnerable groups of people (Blaszczynski & Nower, 2002; Hing et al., 2014), and in samples of problematic gamblers among women more often than men (Hing et al., 2016). Furthermore, escapist expectations enhance the influence of impulsivity in predicting problematic gambling (Flack & Buckby, 2020). When combined with a relaxing element, escapism has proven to be a more important motive for recreational than for pathological gamblers (Lee et al., 2009, 2015; Mulkeen et al., 2017), lending support to the view that negative escapism is better suited for the study of addictions than positive escapism. Past results also advocate using SDT for analyzing gambling and its motives; for example, perceived high autonomy with the mediating effect of low escapism is associated with fewer gambling problems (Rodriguez et al., 2015).

While there is abundant literature on stress and substance use (Brewer et al., 1998; Sinha, 2001), the basis of evidence connecting escapism with SUD is more limited. It is plausible, however, that part of the past studies on avoidance behavior in connection with substance use refers to an escapism-like phenomenon just under a different name. For example, Hayes et al. (2004) and Garey et al. (2016) examined the concept of “experiential avoidance,” which “reflects an unwillingness to experience or remain in contact with aversive internal experiences and attempt to control the frequency or form of the experiences and the contexts in which they

occur” (Garey et al., 2016, p. 59). Nevertheless, the association between escapism and SUD has been established in past research (Crowe et al., 2023). Escapist substance use has been recognized as a working life feature in the form of emotional disengagement coping, where employees seek distraction from work-related stress. In addition, substance use in the work context may also take the form of problem-focused coping to meet expectations at work (Gerich & Lehner, 2023). Among adolescents, both performance-oriented individuals and youth undergoing adverse life events are prone to misuse substances to escape unpleasant or troublesome emotions (Lee et al., 2012; Nealis & Mackinnon, 2018). Escapism has also been associated with excessive drinking motives among female psychiatric patients (Nehlin et al., 2013). In respect to the high comorbidity of addictive behaviors, escapism has been identified as a background factor for concomitant compulsive or risky sexual behaviors alongside substance use (Brem et al., 2017; Mckirman et al., 1996).

Despite the diverse and relatively broad scope of research, several limitations have been mentioned in connection with studies on escapism and addictive behaviors. The knowledge gap points above all to the need for longitudinal data, as excessive reliance on cross-sectional designs does not allow the inference of causal relationships. Furthermore, existing research is largely based on country- or region-specific populations or even smaller samples such as local university students. In convenience sampling, the study participant populations are easily biased in terms of gender, age, or other characteristics. In gaming research, players are normally regarded as one group instead of recognizing different game players’ diverse profiles. Finally, there is a real need for validated scales and a standardized or consistent approach to better understand the construct of escapism and its drivers (Bäcklund et al., 2022; Giardina et al., 2023; Melodia et al., 2022).

The study of escapism in connection with addictive behaviors is crucial because it provides an important complementary approach to addictions. Instead of being only pleasure-seeking behavior, addictions may provide a break from disturbing, anxious, or traumatic thoughts and controversial life situations. Many activities that superficially seem hedonistic may hide troubled psychological or environmental origins underneath. The next section formulates research questions to establish the role of negative escapism as a predictor of addictions and to address the identified shortcomings in the evidence base.

## 4 STUDY OBJECTIVES, RESEARCH QUESTIONS, AND HYPOTHESES

The main objective of this dissertation is to establish the role of escapism as a predictor of addictive behaviors. Integrating evidence from three published research articles, this work aims to assess not only the basic relationship between escapism and addictions but also to analyze interactions between excessive behavior patterns and escapism's link with life satisfaction. Furthermore, this research seeks to examine addictive behaviors in both online and offline settings, both during and outside of the COVID-19 pandemic, combined with the influential approach of SDT. An additional goal will be to explore escape theory as a conceptual backdrop for the onset and recurrence of addictions.

Another key priority of this paper is to recognize the importance of negative escapism in the study of addictions. With the help of longitudinal survey designs and nationally representative samples, this investigation aims at providing robust insight into both within- and between-person effects of escapism and enabling more reliable causal predictions for addictive behaviors. To address a topic less studied in the field of escapism, this dissertation will map out the individual characteristics and drivers behind escapism. Hence, a final general objective would be to answer the question of who the escapists are by analyzing the combination of personality traits, sociodemographic factors, and basic psychological needs.

### 4.1 Can escapism be associated with various types of addictions on a grand scale?

As stated above, one of the shortcomings of existing escapism research is convenience sampling, or the use of a participant base that is too small or biased. In the early stages of this research, it was important to confirm the association between escapism and a diverse set of addictive behaviors with a large enough sample to allow

population-level generalizations. **Article I** took on these issues and investigated the following research questions:

RQ1: To what extent is escapism related to alcohol consumption, smoking, drug use, and gambling?

RQ2: Is escapism with or without problematic alcohol use connected to general life satisfaction?

A central aim of the article was to demonstrate consistency of the relationship between escapism and addictions in the adult population across the country. To secure scientific accuracy and an unambiguous approach, the studied forms of excessive behaviors did not involve conditions outside the DSM-5 and the ICD-11 disease classifications. The analysis focused on the links between escapist behavior motives and alcohol use, smoking, drug use, and gambling. General life satisfaction represented subjective well-being, which presumably was lower for people who experienced more escapism.

## 4.2 Does escapism predict excessive online behaviors in a longitudinal setting?

The longitudinal three-wave study in **Article II** examined escapism's association with excessive online behaviors. Normally, people who are more prone to escapism tend to report higher levels of addictive behaviors. In our analysis, we considered it important to track escapism through two distinct lanes: firstly, to address the comparison of escapism between individuals, and secondly, to analyze how separate individuals perceive their levels of escapism as fluctuating over time. Four hypotheses were formulated consisting of within-person and between-person changes in escapism:

H1: Within-person changes in escapism predict excessive gambling over time.

H2: Within-person changes in escapism predict excessive gaming over time.

H3: Within-person changes in escapism predict excessive internet use over time.

H4a–c: A higher between-person level of escapism is associated with (a) excessive gambling, (b) excessive gaming, and (c) excessive internet use.

The circumstances for this study were largely defined by social isolation due to the COVID-19 restrictions, which plausibly increased negative self-evaluation and the perceived need to escape the self. In previous research, problematic digital gaming has been linked with social alienation (Biegun et al., 2021). While the pandemic setting certainly provided a unique perspective for investigating the role of escapism and addictive behaviors, the analyses of the study arguably have a broader relevance, especially considering the online setting.

### 4.3 Who are escapists, and how do they relate to excessive gambling and gaming?

**Article III** expanded the longitudinal dataset to five waves and continued to provide evidence on escapism's association with excessive gambling and gaming over time. Our aim was to enrich the analysis by identifying the shared characteristics of escapist people and gaining a deeper understanding of escapists as a group. Additionally, we incorporated frustration with the basic psychological needs of autonomy, competence, and relatedness in the study to see how they interact with escapism in predicting excessive gambling and gaming. This would complement existing research suggesting that frustration with basic psychological needs is associated with gambling and gaming problems (Allen & Anderson, 2018; Mills et al., 2021). **Article III** examined two research questions:

RQ3: To what extent does frustration of the basic needs of autonomy, competence, and relatedness predict escapism, and what personality and sociodemographic characteristics are associated with escapism?

RQ 4: Does frustration with basic psychological needs moderate the relationship between escapism and excessive gambling and gaming?

In accordance with SDT and BPNT, this study also touched upon the role of motivation in addiction. Genuine and creative motivation is based on the intrinsic wants, needs, and drives of an individual. The three psychological needs for autonomy, competence, and relatedness should be satisfied for people to feel that their actions are energizing and intrinsically motivating. In contrast, when these basic psychological needs are frustrated, an individual can typically only feel extrinsic motivation for money or other rewards or remain in a state of demotivation.

## 4.4 Ethical considerations

Information on addictive behaviors is sensitive and often falls under personal health data. Securing the safety, confidentiality, and personal integrity of the study participants is of paramount importance. All surveys conducted for the three studies discussed in this dissertation complied with the Declaration of Helsinki and the research guidelines of the Finnish National Board on Research Integrity (TENK). All surveys received ethical declarations from institutional research ethics boards.

The dataset used for **Article I** originated from the Finnish Drinking Habits Survey 2016 (Mäkelä et al., 2019). The survey was conducted by Statistics Finland and was completely anonymized before it was released for research purposes. **Articles II** and **III** were based on a longitudinal survey as part of the Gambling in the Digital Age Project 2021–2024. Data collection was performed by the research company Norstat and validated by the research group. The researchers processed only anonymized data. The academic research ethics committee of the Tampere region approved the study in March 2021 (decision 24/2021). Participation in both surveys was voluntary, and the study objectives were explained to the participants. Informed consent was received from the participants, and they were informed about their right to withdraw from the study at any time.

## 5 DATA & METHODS

### 5.1 Data

The data were chosen based on their representativeness and design to allow for solid statistical analyses and unbiased inference. Examining substance use and online behavior patterns on a national-level population and in a longitudinal setting calls for high-quality sampling with adequate stratification and survey roll-out.

Data used in **Article I** were based on the nationally representative Finnish Drinking Habits Survey 2016 (Mäkelä et al., 2019); this survey has been conducted every eight years since 1968. The survey responses constitute a unique knowledge base on alcohol consumption, drug use, smoking, and gambling among the Finnish adult population. The survey themes include not only the frequency but also the occasions, amounts, consequences, and attitudes pertaining to alcohol. Preferred drinks and shopping channels are covered, along with feelings of personal safety and problematic drinking of the respondents or their next of kin. The questions also addressed gambling frequency and problems, general health, loneliness, and trusted relationships with other people. The participant pool was chosen by stratified random sampling based on age cohorts. Altogether, 3,870 respondents were part of the stratified random sample, of whom 3,823 constituted the net sample after eliminating deceased, institutionalized, and permanently emigrated individuals. The survey took place from August 29 to November 18, 2016 with computer-assisted face-to-face interviews (CAPI or CAMI) and 159 telephone interviews. In addition, register data and structured forms were used to gather the data. Accepted interview responses were recorded from 2,285 final respondents who were 16–80 years of age ( $M = 45.18$ ;  $SD = 18.75$ ; 51.25% males), corresponding to a 59.8% response rate. There was a total of 521 variables in the original dataset.

**Articles II** and **III** were based on longitudinal survey data from the Gambling in the Digital Age Project 2021–2024. The participants were Finnish residents 18–75 years of age ( $M = 46.67$ ;  $N = 1,530$ ) living in mainland Finland (50.33% male). An email invitation was used to recruit online panelists who fit the target profile. The



longitudinal survey was conducted in several waves; the initial survey was conducted in April 2021 (T1,  $N = 1,530$ ); the follow-up round was conducted in October–November 2021 (T2) with a 78% response rate ( $N = 1,198$ ); and the second follow-up was organized in April–May 2022 (T3) with 91% of T2 responders ( $N = 1,095$ ) taking part. The third follow-up (T4) was conducted in October–November 2022 with a 92% response rate vs. T3 ( $N = 1,004$ ), and the fourth follow-up (T5) took place in April–May 2023 with a 93% response rate vs. T4 (934). The geographical and sociodemographic distributions corresponded to the general population. Completing the survey took approximately 15 minutes per round.

## 5.2 Variables and statistical methods

### 5.2.1 Article I: Escape through drinking, smoking, taking drugs, and gambling

The dependent variables in **Article I** were alcohol consumption, smoking, drug use, gambling, and life satisfaction. The continuous alcohol consumption variable was measured with the Alcohol Use Disorders Identification Test - Consumption (AUDIT-C). The 3-item AUDIT-C produced answers on a range of 0–12 and had a Cronbach’s alpha value of 0.70. Problem drinking was measured with the full AUDIT survey. The problem drinking variable was continuous and the scores of the 10-item full AUDIT formed a continuum from 0 to 30 with a 0.80 Cronbach’s alpha. Smoking was a dichotomous variable producing answers to the categories “Does not smoke daily” (0) and “Smokes daily” (1). The categorical variable for drug use was reported as positive (1) for those respondents who had used drugs during the past 30 days and negative (0) for those who had not. The continuous gambling variable was measured with one question: “How often have you gambled during the past month?” The responses were scored on a scale of 1–5: more rarely or not at all (1), 2–3 days a month (2), once a week (3), 2–5 days a week (4), and 6–7 days a week (5). Life satisfaction was also assessed with a single question about how satisfied or dissatisfied the respondents were on a scale of 1–5: very dissatisfied (1), quite dissatisfied (2), neither satisfied nor dissatisfied (3), quite satisfied (4), and very satisfied (5).

The independent escapism variable was composed of three questions on drinking habits: “How often do you drink alcohol to alleviate depression or nervousness?”, “How often do you drink alcohol to relax from work-related stress or other everyday concerns?”, and “How often do you drink alcohol to forget about your worries?” The responses were recorded on a 5-level scale: hardly ever or never (1), sometimes (2), around half of drinking occasions (3), more often than not (4), and always or almost always (5). The escapism variable was continuous, and the scores ranged from 3–15. The internal consistency of the variable was acceptable, with a value of 0.66 as measured by Cronbach’s alpha and 0.72 with McDonald’s omega coefficient.

The association between escapism and alcohol consumption was analyzed using linear regression (ordinary least squares regression), and in a similar manner, the relationship between escapism and gambling was examined with linear regression, which was natural because the dependent variables were continuous. Moreover, the effect of escapism on life satisfaction with or without problematic drinking was assessed using three linear models. Escapism’s link with smoking and drug use, respectively, was modeled using logistic regression, as both dependent variables were categorical. The effect of alcohol consumption was controlled for in the models analyzing smoking, drug use, and gambling.

## 5.2.2 Article II: Escapism and excessive gambling, gaming, and internet use

**Article II** studied the connection between escapism and excessive online behaviors in a longitudinal 3-wave setting. The dependent variables were excessive gambling, gaming, and internet use. Excessive gambling was measured using the 9-item Problem Gambling Severity Index (PGSI), with questions adapted to the past six-month period. Examples of the questions included: “[In the past 6 months], have you bet more than you could really afford to lose?” and “Have you borrowed money or sold anything to get money to gamble?” The PGSI is a standardized self-evaluation tool for non-clinical contexts in the general population and is extensively applied in the Finnish context (Castrén et al., 2018; Ferris & Wynne, 2001; Holtgraves, 2009; Raisamo et al., 2015; Salonen et al., 2017). The responses were recorded on a scale of 0–3 (0 = never, 1 = sometimes, 2 = most of the time, 3 = almost always) and produced a total range of 0–27, with higher scores indicating an elevated risk of problematic gambling. The internal consistency of the excessive

gambling variable as measured with McDonald's omega was excellent. (T1:  $\omega = .94$ , T2:  $\omega = .93$ , T3:  $\omega = .94$ ).

The 10-item internet Gaming Disorder Test (IGDT) was used for the measurement of excessive gaming. The IGDT questions were also adjusted for the previous six months' time: "Have you ever [in the past 6 months] unsuccessfully tried to reduce the time spent on gaming?" and "Have you played a lot despite negative consequences?" The IGDT scale has been validated for use both in Finland and cross-culturally and it is suitable for detecting problematic gaming in adult populations (Király et al., 2019; Männikkö et al., 2019; Savolainen et al., 2022; Vuorinen et al., 2022). Answers on a scale 0–2 (0 = never, 1 = sometimes, 2 = often) produced a potential total score range of 0–20, although the maximum range reached here was 0–16. The higher the score, the more at risk the respondents were. The internal consistency of the IGDT variable was good (T1:  $\omega = .88$ , T2:  $\omega = .90$ , T3:  $\omega = .88$ ).

Excessive internet use was screened with the Compulsive Internet Use Scale (CIUS), a 14-item assessment tool validated for use across different cultures, populations, and language regions (Dhir et al., 2016; Lopez-Fernandez et al., 2019; Meerkerk et al., 2009). The respondents were asked about their perceptions of impaired control over their internet use, for example: "How often do you find it difficult to stop using the internet when you are online?" and "How often have you unsuccessfully tried to spend less time on the internet?" The scale of responses was 0–4 (0 = never, 1 = seldom, 2 = sometimes, 3 = often, 4 = very often) and out of the maximum range of 0–56, answers in **Article II** ranged from 0–53. The internal consistency of the variable was excellent: (T1:  $\omega = 0.95$ , T2:  $\omega = .95$ , T3:  $\omega = .95$ ).

Escapism as an independent variable was measured using the scale of the Motivation to Play in Online Games-Revised (MTPI-R), a revised version of the Motivation to Play in Online Games originally developed by Yee (2006). The MTPI-R focuses particularly on screening negative escapism and omitting the positive aspects of the phenomenon. The scale including only the negative side of escapism is theoretically and empirically more stable, and it focuses on escapism as a form of avoidance behavior. The MTPI-R also highlights negative reinforcement, whereby learning to avoid adverse emotions and real-life controversies leads an individual to repeat harmful behavior patterns (Hagström & Kaldö, 2014). The MTPI-R consists of three questions measuring avoidance behavior: "How often do you play so you

can avoid thinking about some of your real-life problems or worries?”, “How often do you play in order to avoid real-life social encounters or situations?”, and “How often do you continue to play so that you will not have to deal with everyday problems and issues?” The answers were graded on a scale 0–4 (0 = never, 1 = seldom, 2 = sometimes, 3 = often, 4 = always), with the total score ranging from 0–12 (achieved range 0–10) and higher figures indicating more escapism. The McDonald’s omega coefficient indicated a good level of internal consistency for the escapism variable (T1:  $\omega = .84$ , T2:  $\omega = .87$ , T3:  $\omega = .88$ ).

Control variables included sociodemographic factors, alcohol consumption as measured with AUDIT-C, and psychological distress screened with the Mental Health Inventory scale.

Research hypotheses required analyzing both within-person and between-person changes when examining the relationship between escapism and excessive gambling, gaming, and internet use. Linear multilevel regression using hybrid models was applied to assess within-person effects over the longitudinal setting and simultaneously analyze between-person differences. Fixed effects models were run to control within-person estimation bias.

### 5.2.3 Article III: Shared characteristics of escapist and their relation to excessive gambling and gaming

In **Article III**, the dependent variable excessive gambling was investigated with the PGSI with the same specifications as in **Article II**, including questions adjusted for the past six months’ time. The nine questions were scored on a scale of 0–3, producing a total point range of 0–27. The measurement of excessive gambling composed a variable with excellent internal consistency, as confirmed with McDonald’s omega across all five time points: (T1:  $\omega = 0.95$ , T2:  $\omega = 0.94$ , T3:  $\omega = 0.94$ , T4:  $\omega = 0.94$ , T5:  $\omega = 0.94$ ). In a fashion similar to that of **Article II**, the second dependent variable, excessive gaming, was screened with the IGDT. The responses to the 10 questions were collected on a scale of 0–2, and the total scores were set on a range of 0–20. The internal consistency of the excessive gaming variable was good (T1:  $\omega = 0.89$ , T2:  $\omega = 0.90$ , T3:  $\omega = 0.89$ , T4:  $\omega = 0.90$ , T5:  $\omega = 0.90$ ). In **Article III**, escapism was examined as both a dependent and an independent variable. Again, the measurement of the escapism variable was based on the MTPI-R metric with its

three questions on a scale of 0–4 and a total score range of 0–12, with higher scores indicating more escapism. The internal consistency of the escapism variable was good throughout the five measurement waves: (T1:  $\omega = 0.87$ , T2:  $\omega = 0.87$ , T3:  $\omega = 0.88$ , T4:  $\omega = 0.86$ , T5:  $\omega = 0.89$ ).

The Basic Need Satisfaction and Frustration Scale (BNSFS; Chen et al., 2015) was applied to the measurement of psychological need frustration. The scale has strong psychometric properties, extensive usage, and validation among different contexts and populations (Cardella et al., 2020; Chen et al., 2015; Kuźma et al., 2020). The BPNSFS consists of 12 claims related to psychological need frustration falling under the three basic needs, so that autonomy, competence, and relatedness have four items each. Typical claims included: “My daily activities feel like a series of duties,” “I feel the relationships I have are only superficial,” and “I feel unsure of my abilities.” The answers were scored from 1–7 (from 1 = not at all true to 7 = totally true), which translated into a total score range of 4–28, even though the range achieved here was 4–27. The higher the score, the more frustration was expressed. The autonomy subscale had good internal consistency ( $\omega = 0.84$ ); for competence, it was excellent ( $\omega = 0.90$ ), and it was good for relatedness ( $\omega = 0.85$ ). Autonomy, competence, and relatedness were used as independent variables in the models. Regarding the screening of personality traits, the Eysenck Impulsivity Scale (EIS) (Dussault et al., 2011) was used to measure impulsivity, while openness, extroversion, and neuroticism were drawn from the Big Five Inventory (Hahn et al., 2012). Personality traits served as independent variables and controls.

To assess the common features of people who engage in escapist behavior, a population-averaged negative binomial model was applied between the three basic psychological needs and escapism, the sociodemographic variables and escapism, and the personality traits and escapism, respectively. The population-averaged form was used because the study objective was to determine the general risk of escapism, while negative binomial regression was applied to adjust for a highly skewed outcome. In the final analysis, random-effects negative binomial regression models were used to examine the longitudinal effects of escapism on excessive gambling and gaming, where these variables were measured across all five time points. The values of autonomy and competence frustration were incorporated into the model to demonstrate their interaction effect with escapism on excessive gambling and gaming. The interaction terms indicated between-person effects, as the frustration of basic psychological needs was measured only at T1.

	<b>Article I</b>	<b>Article II</b>	<b>Article III</b>
<b>Data</b>	The Finnish Drinking Habits Survey 2016: 2,285 respondents aged 16–80 (M = 45.18, SD = 18.75, 51.25% males)	Longitudinal survey as part of the Gambling in the Digital Age Project 2021–2024: waves T1–T3	Longitudinal survey as part of the Gambling in the Digital Age Project 2021–2024: waves T1–T5
<b>Methods</b>	Linear regression (ordinary least squares regression), Logistic regression	Linear multilevel regression using hybrid models	Population-averaged negative binomial regression, Random-effects negative binomial regression
<b>Dependent Variables</b>	Alcohol consumption, problem drinking, smoking, drug use, gambling, life satisfaction	Excessive gambling, excessive gaming, excessive internet use	Escapism, excessive gambling, excessive gaming
<b>Independent Variables</b>	Escapism	Escapism	Escapism, autonomy frustration, competence frustration, relatedness frustration
<b>Control Variables</b>	Age, gender, marital status, education, SES	Age, gender, education, employment status, income, relationship status, having children, AUDIT-C, MHI-5	Age, gender, education, employment status, income, relationship status, having children, sig. other w/ gambling problems, impulsivity, openness, extroversion, neuroticism

**Table 2.** Summary of the data, methods, and variables

## 6 MAIN FINDINGS

This section will present the principal results of the studies published in **Articles I, II, and III** and provide answers to the research questions and hypotheses.

### 6.1 Article 1: To get high or to get out? Examining the link between addictive behaviors and escapism.

The analyses in **Article I** indicated that escapism strongly predicts alcohol consumption and has a clear association with smoking and drug use. The connection between escapism and gambling was not statistically significant in the final models. Escapism and problem drinking independently predicted lower life satisfaction. When problem drinking was combined with escapism, the interaction predicted lower life satisfaction than problem drinking alone. More specific answers to the research questions were formulated as follows:

RQ1: To what extent is escapism related to alcohol consumption, smoking, drug use, and gambling?

Escapism has a robust connection to alcohol consumption ( $B = 0.51, p < 0.001$ ), and it is consistently associated with smoking ( $B = 0.08, p = 0.043$ ) and drug use ( $B = 0.18, p < 0.035$ ). However, a statistically significant association between escapism and gambling was not found in the final models even though the variables were correlated.

RQ2: Is escapism with or without problematic alcohol use connected to general life satisfaction?

Escapism has an independent association with lower life satisfaction ( $B = -0.05, p < 0.001$ ). Similarly, problem drinking alone predicted lower life satisfaction ( $B = -0.02, p < 0.001$ ). A combined interaction model showed that problem drinking with escapist motives predicted even lower life satisfaction than problem drinking independently ( $B = -0.004, p = 0.017$ ).

## 6.2 Article II: Escapism and excessive online behaviors: A three-wave longitudinal study in Finland during the COVID-19 pandemic

The results in **Article II** demonstrated that escapism is associated with the harmful or disproportionate use of digital network applications. The results showed robust and consistent associations between escapism and all of the studied online behaviors. The findings confirmed the research hypotheses almost entirely:

H1: Within-person changes in escapism predict excessive gambling over time.

H1 was confirmed: Escapism had a strong and independent within-person effect on excessive gambling ( $B = 0.18, p = 0.003$ ).

H2: Within-person changes in escapism predict excessive gaming over time.

H2 was confirmed: Escapism had a strong and independent within-person effect on excessive gaming ( $B = 0.50, p < 0.001$ ).

H3: Within-person changes in escapism predict excessive internet use over time.

H3 was confirmed: Escapism had a strong and independent within-person effect on excessive internet use ( $B = 0.77, p < 0.001$ ).



H4a–c: A higher between-person level of escapism is associated with (a) excessive gambling, (b) excessive gaming, and (c) excessive internet use.

H4a was not confirmed as the between-person association was not statistically significant in the final model.

H4b was confirmed: Escapism had a between-person effect on excessive gaming ( $B = 0.91, p < 0.001$ ).

H4c was confirmed: Escapism had a between-person effect on excessive internet use ( $B = 0.61, p = 0.036$ ).

The within-person models demonstrated that escapism predicted excessive gambling, gaming, and internet use, respectively. The results are significant because they indicate that a person may undergo periods of heightened and lowered escapism, and their propensity to engage in excessive online behaviors alters correspondingly. Furthermore, the between-person assessment in **Article II** suggests that people who generally demonstrate more escapist tendencies and who may be categorized as escapists are more inclined to engage in excessive gaming and internet use. A between-person correlation between excessive gambling and escapism was found, but it did not remain statistically significant in the final models.

### 6.3 Article III: What are escapists made of, and what does it have to do with excessive gambling and gaming?

The results of **Article III** identified shared characteristics of people who engage in escapist behavior and showed that escapism, together with frustration of basic psychological needs, predicts excessive gambling and gaming. The findings show that people feeling a lack of autonomy or competence reported more escapism, meaning that they are more inclined to seek distraction from reality or real-life problems. Impulsivity and openness are personality traits that predict escapism,

whereas extroversion is associated with less escapism. More detailed answers to the research questions are provided below.

RQ3: To what extent does frustration of the basic needs of autonomy, competence, and relatedness predict escapism, and what personality and sociodemographic characteristics are associated with escapism?

The findings show that autonomy frustration ( $B = 0.26, p < 0.001$ ) and competence frustration ( $B = 0.29, p < 0.001$ ) have an independent effect on escapism. The relationship between relatedness frustration and escapism was not statistically significant. Of the personality traits, impulsivity ( $B = 0.14, p = 0.001$ ) and openness ( $B = 0.13, p = 0.002$ ) predicted escapism, but extroversion ( $B = -0.11, p = 0.024$ ) was associated with less escapism. Statistical significance was not reached when assessing the relationship between neuroticism and escapism. Male gender ( $B = 0.15, p < 0.001$ ) and having a significant other who had experienced gambling problems ( $B = 0.17, p < 0.001$ ) were found to be the sociodemographic factors predicting escapism, while older age ( $-0.50, p < 0.001$ ), higher education ( $B = -0.10, p = 0.015$ ), and being in an official relationship ( $B = -0.10, p = 0.017$ ) seemed to provide protection from escapism.

In summary, respecting the answer to RQ3, the results show that people feeling a lack of autonomy or competence reported more escapism, meaning they are more inclined to seek distraction from reality or real-life problems. In general terms, the same is true for men, younger people, singles, and people with lower education, or someone whose next of kin has a problematic gambling history. Additionally, impulsivity and openness were found to be personality traits that expose people to escapism.

RQ 4: Does frustration of the basic psychological needs moderate the relationship between escapism and excessive gambling and gaming?

Escapism alone predicted excessive gambling ( $B = 0.34, p < 0.001$ ) as did the interaction between escapism and competence frustration ( $B = -0.10, p < 0.001$ ). Excessive gaming was predicted by escapism ( $B = 0.52, p < 0.001$ ) and autonomy frustration ( $B = 0.22, p = 0.002$ ) independently. The

relationship between escapism and excessive gaming was moderated by autonomy frustration ( $B = -0.06, p = 0.021$ ) and competence frustration ( $B = -0.05, p = 0.041$ ). Additional fixed-effects models were run to show that escapism had within-person effects on excessive gambling and gaming, respectively.

As a recapitulation of the answer to RQ4, excessive gambling was predicted by escapism and the interaction between competence frustration and escapism. Other risk factors for excessive gambling were male gender, having a significant other who has experienced gambling problems, impulsivity, and extroversion. Risk factors for excessive gaming include escapism and autonomy frustration independently, as well as their interaction. In addition, the interaction between competence frustration and escapism predicted excessive gaming. Moreover, the risk for excessive gaming was higher for men and people whose significant other had experienced gambling problems, as well as for impulsive and open-minded individuals.

## 7 DISCUSSION

The purpose of this dissertation was to provide a comprehensive account of the role of escapism in predicting addictions. Three peer-reviewed scientific articles based on nationally representative and longitudinal samples examined whether escapism has a consistent and enduring effect on addictions. The studies used for the articles were set in both online and offline contexts; they took place both during and outside of the COVID-19 pandemic and were analyzed in the framework of SDT using escape theory and existing literature on escapism and addictions. Together with the conceptual approach of this work, the results strengthen the evidence for escapism as a significant pathway to addictions.

### 1. Escape, substance use, and gambling among the general public

The findings of **Article I** established the connection between escapism and substance use on a large scale. Applying escapism-related questions to the data of the Finnish Drinking Habit Survey 2016 (Mäkelä et al., 2019) showed that escapism has a robust association with alcohol consumption and a consistent relationship with drug use and smoking. Additionally, higher levels of escapism predicted lower life satisfaction, which was further impaired when escapism was combined with problem drinking. This finding logically supports the importance of moderate alcohol consumption. Finally, it was somewhat surprising that the association between escapism and gambling did not reach statistical significance in the final model of **Article I**, even though a correlation was found between the variables. Perhaps this was due to the fact that in this study older people reported more frequent gambling than others, and normally escapism is associated with younger age, as reported in **Article III**. Nevertheless, this finding is in contrast with previous research where a connection between escapism and gambling has been well identified (Lee et al., 2024; Vaughan & Flack, 2022) to the extent that escaping from problems was specifically mentioned as one of the diagnostic criteria for pathological gambling in the DSM-4,

before the latest update of the manual (Center for Behavioral Health Statistics and Quality, 2016).

## 2. Escapism as a pathway to excessive online behaviors

In **Article II**, escapism was found to be associated with excessive online behaviors. Escapism had a strong within-person relationship with excessive gambling, gaming, and internet use over time, suggesting a person may feel varying levels of escapism at different times. Whenever the perceived level of escapism is high, they would be more likely to engage in excessive online behaviors and vice versa. The findings are consistent with the theoretical approach of this dissertation, and they challenge some of the earlier literature viewing escapism as a stable category (Giardina et al., 2023). Furthermore, people who generally have a greater tendency towards escapism reported higher levels of excessive gaming and internet use than non-escapists. Even if the between-person model did not find a statistically significant association between escapism and excessive gambling, the strong connection between escapism and gambling in the within-person model confirmed their close relationship.

It is interesting to reflect, however, why escapism did not have an equally powerful between-person effect on gambling as it did on a within-person level. One psychological explanation could be that gambling, apart from pure games of luck, involves a certain level of a numerical approach in terms of probabilities that does not appeal to people who are less mathematically oriented, and hence do not naturally resort to gambling to escape. This would provide one potential strand of research for future studies.

Additionally, excessive gambling and gaming were independently associated with each other on both the within-person and between-person levels, suggesting that one type of excessive online behavior may predict another. This finding is consistent with the etiological similarity detected between different addictions and, more specifically, with the neurobiological resemblance between problematic gambling and IGD (Fauth-Bühler & Mann, 2017). It may also be seen to support the concept of addiction substitution, in which a person recovering from one addiction replaces it with another (Kim et al., 2021). Moreover, the reciprocal effects pinpoint the convergence of online gambling and gaming as the boundaries between digital

gambling and gaming become blurred (Delfabbro & King, 2023; Kolandai-Matchett & Wenden Abbott, 2022; Oksanen et al., 2024).

3. Impaired self-determination predicts escapism and has an interaction effect on excessive gambling and gaming

**Article III** set out to define who escapists are by using SDT, key personality traits, and sociodemographic factors. The results showed that feelings of suppressed autonomy or competence predict escapism, as does an impulsive or open-minded personality. Male gender and having a significant other who has experienced gambling problems were also associated with more escapism.

It is easy to understand that people resort to escapism if their fundamental life choices, such as a career or an intimate relationship, have led them to an impasse or do not seem to offer a meaningful perspective. For all their individual desires, talents, skills, and capacities, people may find themselves in daunting or alienating work roles or in dysfunctional relationships. One comes to understand that whether it is about the profession, social roles, or deeply personal spheres of life, the possibilities and outcomes are affected by the historical era, geography, and life circumstances. In the context of modernity, these very circumstances are shaped by markets, technology, or abstract systems that a modern individual cannot fully control and hence feels diminishing autonomy. While it is true that human beings have never completely mastered their own fate, modernity does involve a significant number of new high-consequence risks, such as climate emergencies, pandemics, and nuclear conflicts, which people must accept as part of their lives in the late modern age (Giddens, 1991). As time goes by, an unresolved conflict between the inner self and the oppressive context of daily life may lead to an unbearable emotional controversy that manifests itself through escapist behavior (Cohen & Taylor, 1992). Escapism as a response to long-term circumstances is typically practiced with more restraint than escapism as a response to abrupt negative events. Whereas commonplace examples of escapist reactions to shocking news would include getting intoxicated by alcohol or illegal drugs, hurting oneself, or even committing suicide, people frustrated about stifling life circumstances usually engage in escapist behavior more moderately and regularly on a daily or weekly basis (Baumeister, 1991). This is consistent with the further findings of **Article III**, where escapism stood out as a risk factor for

excessive gambling and gaming. Additionally, competence frustration was found to amplify the effect of escapism on excessive gambling and gaming, and in a similar manner, autonomy frustration escalated escapist gaming. The analysis provided further confirmation that frustration of the basic psychological needs of autonomy and competence leads to adverse mental consequences.

The evidence of the effect of key personality traits on escapism and excessive gambling and gaming was quite consistent. Impulsivity was a risk factor across all the study variables, openness predicted escapism and excessive gaming, and extroversion was associated with excessive gambling. The most common protective factors against escapism and excessive online behaviors were older age and higher education.

## 7.1 Theoretical and practical implications

In accordance with the integrated theoretical framework introduced in Section 3, escapism originates from the interplay between societal development and the human psyche. An escapist's motivation then taps into the brain resources and starts exploiting the reward pathway to distract an overburdened mind from its real-life problems and worries. Whereas escapism is not equal to addiction, it does emerge as a sort of "transit area" between a non-addicted and the addicted state, and with repeated exposures, the pleasure-seeking behavior quite likely turns into an addiction. This analogy comes across most effectively with the biopsychosocial model of addiction lending support to its usefulness in understanding the essence of addiction.

Understanding escapism as a negative construct is particularly important because it opens up an alternative way of explaining addictive behavior. Negative escapism basically suggests that the ultimate reason for compulsive pleasure-seeking is not the gratifying sensations produced by psychoactive substances or pleasurable activities. Instead, the primary driver behind addictions is relief-seeking that allows people to forget about their real-life troubles and controversies. Hence, the development of addictions is not as much motivated by the enjoyable end-state as it is by avoidance of the anxieties, controversies, and pressures modern individuals experience. This dissertation has presented a theoretical framework on psychosocial response styles

in which low self-monitoring, avoidance coping, prevention focus, and negative escapism were grouped under avoidant response styles. Among them, escapism stands out as the most immersive state that in its severe forms comes close to unconsciousness and dissociation. However, instead of pathologizing escapism, it is useful to treat it as a continuum ranging from relaxation to more malignant types of self-segregation (Deleuze et al., 2019; Guglielmucci et al., 2019). This type of approach effectively separates escapism from both stress coping and addictions as distinct categories.

On the practical side, the findings presented in this dissertation have a bearing on policy recommendations and treatment approaches alike. Past research suggests that escapist drinkers and daily smokers pay closer and longer attention to alcohol- and tobacco-related stimuli, respectively (Dickter & Forestell, 2012; Dickter et al., 2014; Forestell et al., 2012). Correspondingly, people who gamble are sensitized to gambling-related cues (McGrath et al., 2018). Considering the mounting evidence on escapism as a predictor of addictions and the heavy burden on public health imposed by alcohol, smoking, and gambling, there should be a clear incentive for lawmakers to restrict the availability and visibility of alcohol, tobacco, and gambling as part of a socially responsible health policy.

Escapism typically serves as a brief getaway from reality. On the one hand, it is an easy way out, a behavior pattern that generates rewarding feelings for a while and makes people forget about the distressful side of life. On the other hand, escapism may distract people from facing their problems and addressing them. When pleasure-seeking behavior becomes addictive, it is even harder for an individual to understand how it all began and why. A more thorough understanding of escapism as one of the central motives behind addiction would help both researchers and clinicians approach and influence the root causes of addictions.

## 7.2 Strengths and limitations

A key strength of this dissertation is the holistic view on escapism, which has both environmental and psychological origins. Escapism is distinct from stress-coping and is well-founded as a negative concept in connection with addictions. Another



major strength is the composition of the participant base in all the studies conducted. **Article I** was based on the nationally representative Finnish Drinking Habit Survey 2016 (Mäkelä et al., 2019). **Articles II** and **III** utilized longitudinal survey data gathered in several waves and represented the adult population living in Finland. Relatively large samples and repeated surveys enabled stronger predictions on the relationship between the variables. The hybrid regression models applied in **Article II** made a clear contribution to this research by permitting a simultaneous investigation of within-person and between-person effects. A further strength of this dissertation is the changing environmental setting for the longitudinal studies featured in **Articles II** and **III**. The survey for **Article II** was conducted during the COVID-19 pandemic when there were restrictions on social isolation that were imposed and lifted intermittently. The timing of these studies made it possible to analyze the effect of escapism on addictive behaviors both during and after a particularly stressful period. It is plausible that the uncertainty felt during the lockdowns was reflected in the perceived need for escapism, which potentially made the within-person changes more apparent in the analyses. On this note, it could be argued that the between-person effects of escapism were more likely based on individual psychological characteristics, such as excessive self-awareness, in accordance with escape theory.

The principal limitations of this dissertation include its restriction to one country, as participants in all the studies were from Finland. Cultural aspects and differences in social protection and health policy presumably influence perceived levels of escapism and addictions. Another limitation is related to the lack of situational factors in the analysis. Although large datasets come with great benefits in terms of representativeness and predictive power, they do not allow analysis of circumstantial events or conditions. A third limitation concerns the escapism variable, as there are no established escapism scales. Although this dissertation has laid out a well-justified position for negative escapism and successfully applied the MTPI-R scale for a logical analysis in **Articles II** and **III**, previous research relied on diverse definitions and metrics, making comparison of results difficult. Furthermore, the escapism scale in **Article I** was constructed based on alcohol-related questions, which may have partly accounted for the relationship between escapism and drinking despite the fact that the effect of alcohol was controlled across the models.

## 7.3 Conclusions

Escapism plays a significant role in predicting addictions. Over time, seeking distraction from reality or relief from troublesome thoughts by pursuing gratifying sensations may develop into an addiction. This dissertation has provided evidence that escapism has a strong and consistent relationship with alcohol consumption, smoking, and drug use, as well as a robust association with excessive online behaviors such as gambling, gaming, and internet use in a longitudinal setting. People with impulsive and open personality traits are more susceptible to escapist behavior, and so are individuals who experience a lack of autonomy or competence. Escapism should be understood as a negative concept in connection with addictions. Recognizing the importance of escapist motives for addictive behaviors should help researchers, social workers, and healthcare professionals to better address the underlying causes of addictions.

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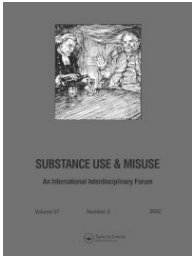
## **To get high or to get out? Examining the link between addictive behaviors and escapism**

Hannu Jouhki & Atte Oksanen

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## To Get High or to Get Out? Examining the Link between Addictive Behaviors and Escapism

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### ABSTRACT

**Background:** Escapism is a tendency to seek escape and distraction from reality or real-life problems. Past research regards escapism as a negative inducement that leads to adverse consequences when combined with substance use and other addictive activities. Existing knowledge on escapism's connection to addiction is mostly based on studies with restricted populations and lacks a comprehensive view. **Objectives:** Using an extensive data set, our aim was to investigate whether escapism has a consistent association with different types of addictive behaviors. In this study, we examined (1) the extent to which escapism is related to alcohol consumption, smoking, drug use, and gambling and (2) whether escapism moderates the relation between problem drinking and life satisfaction. **Methods:** We used cross-sectional survey data from a nationally representative stratified random sample of 2,285 respondents aged 16 to 80 years (mean [*M*] 45.18; standard deviation [*SD*] 18.75; 51.25% males) living in Finland. Linear and logistic regression models estimated the association of escapism and alcohol consumption, smoking, drug use, and gambling. The second part of the analysis focused on life satisfaction. **Results:** Escapism was associated with alcohol consumption, smoking and drug use, but not with gambling. Escapism moderated the association between life satisfaction and problematic alcohol use, indicating that problem drinking with escapist motives predicts lower life satisfaction than problematic alcohol use alone. **Conclusions/Importance:** Escapism bears a consistent relation to substance use and is a particularly strong predictor of alcohol consumption. Escapism can serve as an initial motive, a reinforcer, and an amplifier of addictive behaviors.

### SHORT SUMMARY

This study investigated the association of escapism with alcohol consumption, smoking, drug use and gambling. Escapism had a consistent relation to drinking, smoking and drug use. Problem drinking with escapist motives predicted lower life satisfaction than problematic alcohol use alone. The results suggest escapism can serve as a motive or an amplifier of addictive behaviors.

### KEYWORDS

escapism; alcohol consumption; drinking; drug abuse; smoking; gambling; addictive behavior

## Introduction



Escapism is a tendency to seek escape and distraction from reality or real-life problems (Hirschman, 1983; Woody, 2018). The psychological concept of escapism has various origins and, depending on the underlying causes, may be understood as escape from the self (Baumeister, 1991), escape from everyday life (Cohen & Taylor, 1992), or escape from freedom of choice (Fromm, 1994).

Escape theory by Baumeister (1991) views escapism as escape from the self. It involves decreasing self-awareness and forgetting the meaningful aspects of the self. By contrast, high self-awareness makes individuals compare themselves to standards that may evoke feelings of inadequacy. According to the escape theory, escapism is a means of letting go of high-level conscious thinking and turning to bodily sensations and impressions. In this way, escapist

behavior is meant to free people from incessant self-evaluations, analyses, comparisons, and judgment (Silvia & Duval, 2001; Baumeister, 1991).

Another common approach to escapism, the need to escape from everyday life, may be understood as a disengagement-based stress coping strategy, where the individual escapes from the stressor or the emotions evoked by it (Carver & Connor-Smith, 2010). The root causes of stress and the subsequent need to escape from the daily course of life can be explained by an identity mismatch with prevailing constructions of society or forced adaptation to a uniform way of life. When identity and an individual's sense of separateness do not develop in a sane, sustainable way, escapism may appear to protect against neuroticism and mental disorders (Cohen & Taylor, 1992).

The escape-from-freedom approach is based on the theory of Erich Fromm (1994), originally introduced during

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the Second World War. The need to escape from freedom stems from the inability to handle the expanding freedom of choice characteristic of modern life. Increasing freedom from former authorities, such as church, family, or traditions, may not only facilitate mental liberation, but also cause anxiety about feeling alone and being entirely responsible for one's thoughts and deeds (Fromm, 1994). To find relief from psychological isolation, individuals escape their true selves by submitting to new power structures in society.

It is worth noting that escapism may also be understood as an exploration of the adventurous side of life. In this respect, escapism is not a move away from pain or anxiety, but rather a life-affirming move toward pleasure, excess and indulgence. This adventure-seeking approach to escapism is characteristically related to youth and early adulthood, and to distinctive settings like tourist holidays (Tutenges, 2012). To adopt a more universal view on the concept in our analysis, we treat escapism as distraction from reality, real-life problems and unpleasant emotions.

Previous research indicates that addictive behaviors are closely related to the idea of distancing oneself from the reality. Coping with unpleasant emotions has become a well-established approach to escapism in alcohol research. Evidence across numerous studies demonstrates how drinking to cope is associated with alcohol abuse (Cooper et al., 1988; Neff, 1997). Particularly after experiencing a personal failure, people with a lower capacity for constructive emotion regulation are more likely to indulge in binge drinking (Poncin et al., 2017). It is also argued that severe drinking and gambling problems are more probably associated with escapist coping approaches than with reward-seeking behavior (Atkinson, 2019). The tension-reducing and stress-dampening properties of alcohol consumption were challenged and reevaluated in past decades (Polivy et al., 1976; Stockwell et al., 1982; Young et al., 1990). In addition to alleviating external stressors, alcohol offers psychological relief by decreasing higher-order evaluations of one's past or immediate activities (Hull, 1981), thereby providing an escape from self-awareness, consistent with the principles of Baumeister's (1991) escape theory.

Gambling disorder includes a diagnostic criterion related to alleviating distress by gambling (American Psychiatric Association, 2013), and mood regulation appears as one of the motivations for compulsive gambling in the research literature (Blaszczynski & Nower, 2002). This analysis has been expanded by showing how escapism moderates the relationship between impulsivity and problem gambling (Flack & Buckby, 2020). Escapist motives, relative to entertainment or social motives, are more strongly associated with problem gambling (Nower & Blaszczynski, 2010). Among different forms of gambling, escapism is a notable predictor of gambling on electronic gaming machines (Rockloff et al., 2011). Furthermore, it is possible to distinguish from alcohol abuse problems the type of escapism traits that are unique to problem gambling (Rockloff & Dyer, 2006). Considering the distinction between skill-based and chance-based gambling in terms of addictions, evidence

suggests competent gamblers are more prone to make impulsive decisions and engage in addictive behaviors than those who gamble for entertainment (Oksanen et al., 2019).

Escapism is an essential motivation for illicit drug use, as identified in studies involving socially deprived populations (Kaló et al., 2017), adolescents (Skrzypiec & Owens, 2013) and party context (White et al., 2006). The self-medication hypothesis of substance use disorders (Khantzian, 1997) bears a resemblance to escapist drug use, as they are both based on relieving painful affects through intoxication. In recent years, escapist motives have been connected to the abuse of prescription opioids and subsequent transitions to heroin use (Cicero & Ellis, 2017).

Smoking a cigarette is typically viewed as a moment of escape from daily routines or stressful situations. Evidence from smoking research suggests that escape from negative affect becomes the most important motivation, over pleasure seeking, as nicotine dependence increases (Mathew et al., 2014). In the context of addiction persistency, escapism may be regarded as a negative reinforcement motive that causes people to resume addictive behaviors to avoid negative affect. A body of research considers negative reinforcement the predominant addiction motivation, as opposed to the pleasure-seeking positive reinforcement approach (Baker et al., 2004). The case for negative reinforcement in nicotine addiction is further strengthened by evidence suggesting that positive reinforcers such as high immersion in smoking related cues do not increase cigarette craving among current smokers (de Bruijn et al., 2021).

Conceptually, escapism and addiction appear to overlap. Categories such as "secondary addictions" (Griffiths, 2013) represent excessive behaviors motivated by the avoidance of unpleasant thoughts, anxiety, or problems. A secondary addiction can thus be understood as a symptom of unresolved disorders or conflicts. Even though similar qualities may characterize escapism, there are important differences between escapism and addiction. Escapism is more naturally defined as the initial motivation (Rockloff et al., 2011), whereas addiction is a state of affairs along a continuum (Skog, 2003). It is natural to consider escapist activity as a momentary episode (Cohen & Taylor, 1992), but addiction involves the idea of a chronic condition developed due to repeated engagement in the behavior (West & Brown, 2013). Furthermore, escapism is not only about instant relief. It may also take the form of self-handicapping or self-defeating behaviors (Baumeister, 1991; Baumeister et al., 1994).

The concept of life satisfaction has been defined as an evaluative component of subjective wellbeing. As for escapism's connection with life satisfaction, previous research indicates that escape from self-awareness and escape from negative aspects of real life are strong predictors of lower life satisfaction. (Hagström & Kaldo, 2014; Błazek et al., 2015).

Existing research on escapism and recent developments in the field of addiction studies indicate that the significance of escapism has not been fully utilized in contemporary addiction research. Distraction from unpleasant emotions is a relevant function for various addictive behaviors (Orford, 2001). Given the length and weight of the research tradition,

the existing knowledge on escapism's connection to addiction still lacks a comprehensive view. Our aim is to investigate whether escapism has a consistent association with different types of addictive behaviors. We believe a study with nationally representative data will yield new insight into the role of escapism in the development of addictions.

For the sake of clarity and scientific rigor, we limited the present study to the forms of addiction included in DSM-V and ICD-11 disease classifications. Our principal research question is as follows: To what extent is escapism related to alcohol consumption, smoking, drug use, and gambling? We also examine whether escapism with or without problematic alcohol use is connected to general life satisfaction.

## Methods

### Participants and procedure

This study's participants included 2,285 Finns aged 16 to 80 years (mean [*M*] 45.18; standard deviation [*SD*] 18.75; 51.25% males) who participated in the nationally representative Finnish Drinking Habits Survey 2016 (Mäkelä et al., 2016). This survey was part of a series that has been conducted every eight years since 1968 to analyze the consumption of alcohol, tobacco, and illegal drugs, as well as gambling habits, across the population.

The interviewed respondents were chosen using stratified random sampling based on age groups. A gross sample of 3,870 cases was reduced to a net sample of 3,823 after eliminating overcoverage due to deceased, institutionalized, or permanently emigrated individuals. The number of accepted interviews corresponding to survey observations was 2,285 (response rate 59.8%), and the total number of variables in the original data set was 521. Register data and structured forms were used as part of the data acquisition. The survey was conducted between 29 August and 18 November 2016 using computer-assisted face-to-face interviews (CAPI or CAMI), and 159 respondents were interviewed by telephone. After the verbal interview, respondents were given an additional paper form to complete and return through the mail. In total, 2,150 such forms were returned.

### Variables

#### Independent variable

**Escapism.** Escapism was measured by combining three variables, each answering a different question about drinking motives: "How often do you drink alcohol to alleviate depression or nervousness?"; "How often do you drink alcohol to relax from work-related stress or other everyday concerns?" and "How often do you drink alcohol to forget about your worries?" The answers to escapism questions were divided into five categories: *hardly ever or never* (1), *sometimes* (2), *around half of drinking occasions* (3), *more often than not* (4), and *always or almost always*

(5). Missing cases were removed from each of the three variables, leaving a total of 1,948 valid observations per variable. Cronbach's alpha of the escapism variable was 0.66. The reliability was further checked using McDonald's omega coefficient (Hayes & Coutts, 2020), that produced a value of 0.72. We treated the escapism variable as continuous with a range of 3 to 15 (*M* 4.67, *SD* 1.97).

#### Dependent variables

**Alcohol consumption.** In the Finnish Drinking Habits Survey 2016, the 3-item AUDIT-C test measured alcohol consumption while problem drinking was studied using the full 10-item AUDIT questionnaire. The full AUDIT test has better screening performance for the detection of more severe drinking problems, even if both tests identify at-risk drinking habits adequately (Moehring et al., 2019). For these reasons, we used data from the AUDIT-C to analyze the association between alcohol consumption and escapism. Data from the full AUDIT was applied to examine the connection of escapism and problem drinking with life satisfaction. AUDIT-C test questions produced 2,145 observations with values between 0 and 12 (*M* 3.32, *SD* 2.48), Cronbach's alpha 0.70, and they were used as a dependent variable for alcohol consumption. The full AUDIT questions involved 2,145 observations with values between 0 and 30 (*M* 4.87, *SD* 4.55), Cronbach's alpha 0.80, and they were used as a dependent variable for problematic alcohol use.

**Smoking.** Information on smoking prevalence was derived from the survey data. We wanted to focus on people who smoked daily at the time of the survey. Out of 2282 respondents 367 indicated they smoked daily. The responses were categorized into two groups with the values "does not smoke daily" (0) and "smokes daily" (1).

**Drug use.** Use of illegal drugs was included in the analysis in the form of a categorical variable. Again, we aimed to concentrate on cases with ongoing habits or a very recent history of drug use. The survey data provided yes-or-no answers to the question "Have you tried or used any drug during the past 30 days?" from 2,150 respondents. The answers were encoded with values "no" (0) and "yes" (1).

**Gambling.** The tendency to engage in gambling activity was described using the following question: "How often have you gambled during the past month?" The gambling question produced 1,694 observations with values between 1 and 5 (*M* 2.29, *SD* 1.15). We inverted

the scale of the answers to better reflect a greater desire for gambling: *more rarely or not at all* (1), *2–3 days a month* (2), *once a week* (3), *2–5 days a week* (4), and *6–7 days a week* (5).

**Life satisfaction.** To study the connection between escapism and general life satisfaction, a single question from the data set was selected to represent overall life satisfaction: "How satisfied or dissatisfied with your life are you at the moment?" After reversing the variable's scale, the question produced the following answer categories: *very dissatisfied* (1), *quite dissatisfied* (2), *neither satisfied nor dissatisfied* (3), *quite satisfied* (4), and *very satisfied* (5). With four missing cases, the total number of observations in the life satisfaction variable was 2,281 ( $M$  4.17,  $SD$  0.73).

Life satisfaction is typically evaluated against personally relevant and individually chosen standards instead of a universal scale (Diener et al., 1985). One of the debates in the domain concerns the extent to which self-reported life satisfaction can be generalized over time. Schwarz and Strack (1999) argued that perceived life satisfaction scales are often guided by momentary, context-bound, or mood-based information, which is why their reliability and other methodological aspects may be compromised. However, there is evidence showing that situational and contextual factors are not able to override the effect of more consistent influences on perceived life satisfaction (Schimmack et al., 2002). Hence, survey-based assessments of life satisfaction should be considered acceptable. Single-question measures for life-satisfaction have given reliable results in several panel studies with nationally representative data (Lucas & Brent Donnellan, 2012).

### Control variables

Age, gender, marital status, education level and socio-economic position were used as control variables across the analysis. This set of background factors provided a useful way to verify the relation of escapism to addictive behaviors. Marital status included both marriage and common law marriage. Divorced or widowed respondents were assigned to a separate category. Education level was broken down to primary, secondary and higher education with primary school as a baseline, whereas socio-economic position included distinct categories for employees, managers and workers as a comparison category.

The outline of variables is presented in Table 1.

### Statistical methods

We analyzed our main research question (i.e., whether escapism predicts alcohol consumption, smoking, drug use, and gambling) using two linear and two logistic regression models. Three additional linear regression models were used to describe how escapism with or without problematic alcohol use is related to general life satisfaction.

The choice of linear regression (ordinary least squares regression) was justified for model 1 (alcohol) and model 4 (gambling) as dependent variables were continuous. Model 2 (smoking) and model 3 (drug use) used logistic regression as dependent variable was categorical. Models 1–4 included escapism as the main independent variable, but they were controlled for socio-demographic background. Models 2–4 also included alcohol use as control variable.

The tables report unstandardized regression coefficients ( $B$ ) and their 95% confidence intervals (95%  $CI$ ), as well as standardized regression coefficients ( $\beta$ ) for linear regression models. The effects of logistic regression models are

**Table 1.** Descriptive statistics.

Descriptive Statistics		<i>n</i>	%	<i>Min</i>	<i>Max</i>	<i>Mean</i>	<i>SD</i>
Dependent variables							
Alcohol consumption		2145		0	12	3.32	2.48
Problem drinking		2145		0	30	4.87	4.55
Drug use		2150		0	1	0.02	0.13
Smoking		2282		0	1	0.16	0.37
Gambling		1694		1	5	2.29	1.15
Life satisfaction		2281		1	5	4.17	0.73
Independent variables							
Escapism		1948		3	15	4.67	1.97
Control variables							
Age <sup>†</sup>		2285	100.00	16	80	45.18	18.75
Gender							
	Women	1114	48.75				
	Men	1171	51.25				
Marital status							
	Unmarried	629	27.53				
	Married <sup>††</sup>	1387	60.70				
	Divorced/widow	269	11.77				
Education							
	Primary school <sup>†††</sup>	438	19.17				
	Secondary school	932	40.79				
	Higher education	915	40.04				
Socio-economic status <sup>††††</sup>							
	Worker	682	37.97				
	Employee	672	37.42				
	Manager	442	24.61				

<sup>†</sup>Age: in the end of 2016.

<sup>††</sup>Married: marriage or common law marriage.

<sup>†††</sup>Primary school: primary education or unknown.

<sup>††††</sup>Socio-economic status:  $n = 1796$ .

presented as unstandardized regression coefficients ( $B$ ) and their 95% confidence intervals (95%  $CI$ ), as well as odds ratios ( $OR$ ). The coefficients of linear and logistic regression are not comparable across models. The assumptions of both linear and logistic regression were checked. The robustness of the analysis on escapism and drugs was tested further using penalized maximum likelihood logistic regression. All analyses and variable processing were performed with Stata version 16.1 software. Analytic weights were used.

## Results

Statistical analysis involved analyzing risk factors for alcohol consumption, smoking, drug use, and gambling in linear and logistic regression models that adjust for confounding factors. The results for Model 1, as reported in Table 2, show that escapism is strongly associated with alcohol consumption ( $B=0.51$ , 95%  $CI = 0.45, 0.57$ ;  $\beta=0.43$ ). Males and younger participants reported higher alcohol consumption than others.

Model 2 was based on logistic regression and described the relationship between a continuous escapism variable and a categorical smoking variable. Escapism was associated with smoking ( $B=0.08$ , 95%  $CI = 0.002, 0.16$ ;  $OR = 1.09$ ). In addition, higher alcohol use, younger age and divorced or widowed status and were associated with higher propensity to smoke, whereas highly educated respondents and managers were less likely to smoke than workers. Model 3 showed that drug use was associated with escapism ( $B=0.18$ , 95%  $CI = 0.01, 0.36$ ;  $OR = 1.20$ ). Younger age was associated with lower inclination to use drugs.

In contrast to models 1–3, we did not find statistically significant association between escapism and gambling in the model 4. Gambling was associated with higher alcohol use. Males and older people reported gambling more than others. Although married people had a higher chance of engaging in frequent gambling compared to unmarried people, even higher gambling rates were reported by divorced or widowed individuals. Those in managerial positions gambled less than others did.

The final research question about the connection between escapism and life satisfaction was addressed using three linear regression models (Table 3). The first one was applied to study the connection between overall life satisfaction and escapism (Model 1). Another model was run to examine the relationship between overall life satisfaction and problematic alcohol use (Model 2), and a third examined the interaction between escapism and problematic alcohol use in explaining life satisfaction (Model 3). Again, age, gender, marital status, education level and socio-economic position served as control variables. The results indicate that escapist drinking motive alone ( $B = -0.05$ , 95%  $CI = -0.07, -0.03$ ;  $\beta = -0.14$ ), as well as problem drinking ( $B = -0.02$ , 95%  $CI = -0.03, -0.01$ ;  $\beta = -0.11$ ), independently explained lower life satisfaction. Moderation analysis showed that the interaction between problem drinking and escapism was statistically significant ( $B = -0.004$ , 95%  $CI = -0.007, -0.001$ ;  $\beta = -0.08$ ), indicating that, when combined using an interaction model, problem drinking with escapist motives predicts lower life satisfaction than problematic alcohol use alone (Figure 1). The results also suggest that, at very low

levels of escapism, higher alcohol consumption predicts slightly higher life satisfaction. Being married was associated with higher life satisfaction in all models.

## Discussion

This study analyzed how escapism is associated with alcohol consumption, smoking, drug use, and gambling. The additional analysis examined whether escapism moderates the relation between problematic alcohol use and life satisfaction. The results indicate a clear connection between escapism and alcohol use, smoking and drug use. The strongest association was identified between escapism and alcohol consumption. Escapism was related to lower life satisfaction and problematic alcohol use with escapist motives predicting even lower life satisfaction than problem drinking alone.

It is natural to explain addictive habits in terms of their consequences, such as the relaxing effect of a cigarette or a drink. The concept of escapism constitutes an important contribution to the addiction debate by diverting attention from the desired end state of any particular addictive behavior and focusing on the anxieties modern individuals experience. From the escapist perspective, one does not engage in addictions “to get high”, but rather “to get out.” Willingness to escape from everyday life by distancing oneself from reality is a widely recognized need of modern human beings (Baumeister, 1991; Cohen & Taylor, 1992; Fromm, 1994).

Although it may seem reasonable to draw parallels between escapism and addiction, they are distinct concepts. The frequently cited criteria that apply to most addictions include salience, euphoria, tolerance, withdrawal symptoms, conflict, and relapse (Orford, 2001). Apart from conflict, these features do not relate to escapism. Instead, escapist motives for a behavior seem to predict addiction, as our analyses show.

Another key finding of this study is escapism's role as an amplifier. The combination of problem drinking and escapism was associated with lower life satisfaction than problematic alcohol use without escapism. According to the literature, escapism in connection with alcohol consumption occurs especially when a person undergoes misery, a setback or stress, involving a threat to self-esteem (Poncin et al., 2017). Other types of misfortunes may invoke varied reactions, but they normally do not induce binge or heavy drinking. Indeed, getting drunk on purpose is not the only form of alcohol-related escapism. Using alcohol to escape from the everyday burden of selfhood typically involves consuming alcohol in moderate amounts during the normal course of life. By making people forget the broader contexts of their lives and set aside their inhibitions, alcohol provides a way to escape from excessive self-awareness (Baumeister, 1991). However, our results underscore the importance of restraint, as escapist drinking motives are associated with higher alcohol consumption than drinking without escapism.

Smoking was responsive to escapism in the present study. As tobacco consumption has declined in the Western world, smoking has steadily lost its role as a social facilitator. However, smoking remains a deep-rooted habit for many. It has not been eradicated from our communities, despite its undeniable health hazards or social disapproval. The



**Table 2.** Models 1–4: The association of escapism with alcohol consumption, smoking, drug use and gambling.

	Alcohol consumption			Smoking			Drug use			Gambling		
	Linear regression model 1			Logistic regression model 2			Logistic regression model 3			Linear regression model 4		
	B	CI95%(B)	β	P	B	CI95%(B)	OR	P	B	CI95%(B)	β	P
Escapism	0.51***	0.45, 0.57	0.43***	0.000	0.08*	0.002, 0.16	1.09*	0.043	0.18*	0.01, 0.36	1.20*	0.035
Alcohol consumption	-0.02***	-0.03, -0.01	-0.13***	0.000	0.21***	0.13, 0.29	1.23***	0.000	0.07	-0.09, 0.23	1.07	0.395
Age <sup>†</sup>	1.21***	1.00, 1.43	0.27***	0.000	-0.01*	-0.02, -0.002	0.99*	0.016	-0.08***	-0.11, -0.04	0.93***	0.000
Gender/M	-0.29	-0.59, 0.01	-0.06	0.060	0.13	-0.28, 0.54	1.14	0.541	0.89	-0.16, 1.93	2.43	0.096
Married <sup>††</sup>	-0.14	-0.53, 0.24	-0.02	0.470	0.59*	0.03, 1.14	1.80*	0.038	-0.60	-1.52, 0.32	0.55	0.200
Divorced/ widow									(empty)			
Education/ ref. Primary school	0.19	-0.15, 0.53	0.04	0.268	-0.46*	-0.92, -0.01	0.63*	0.044	-0.56	-1.94, 0.83	0.57	0.430
Secondary school	0.09	-0.26, 0.44	0.02	0.602	-1.14***	-1.69, -0.59	0.32***	0.000	-0.50	-2.15, 1.15	0.60	0.550
Higher education												
Socio-economic status/ ref. Worker	-0.12	-0.40, 0.15	-0.03	0.379	-0.25	-0.62, 0.12	0.78	0	0.09	-1.06, 1.23	1.09	0.879
Employee												
Manager	-0.05	-0.38, 0.28	-0.01	0.764	-0.86**	-1.44, -0.26	0.43**	0.005	-0.30	-1.80, 1.21	0.74	0.699
Constant	1.80***	1.15, 2.45		0.000	-1.48***	-2.32, -0.65	0.23***	0.000	-2.19	-4.49, 0.12	0.11	0.063
N		1 449				1449				1269		
R <sup>2</sup>		0.34				0.18 <sup>†††</sup>				0.21 <sup>†††</sup>		
Chi2						123.11				60.36		

\*p ≤ 0.05, \*\*p ≤ 0.01, \*\*\*p ≤ 0.001 B=unstandardized regression coefficient ††† Cragg-Uhler/Nagelekerke R<sup>2</sup>  
 † in the end of 2016 †† marriage or common law marriage β=standardized regression coefficient OR=odds ratio

CI 95%=95% confidence interval

†† Cragg-Uhler/Nagelekerke R<sup>2</sup>

β=standardized regression coefficient

OR=odds ratio

††† Cragg-Uhler/Nagelekerke R<sup>2</sup>

CI 95%=95% confidence interval

†† marriage or common law marriage

β=standardized regression coefficient

OR=odds ratio

† in the end of 2016

†† marriage or common law marriage

††† Cragg-Uhler/Nagelekerke R<sup>2</sup>

CI 95%=95% confidence interval

β=standardized regression coefficient

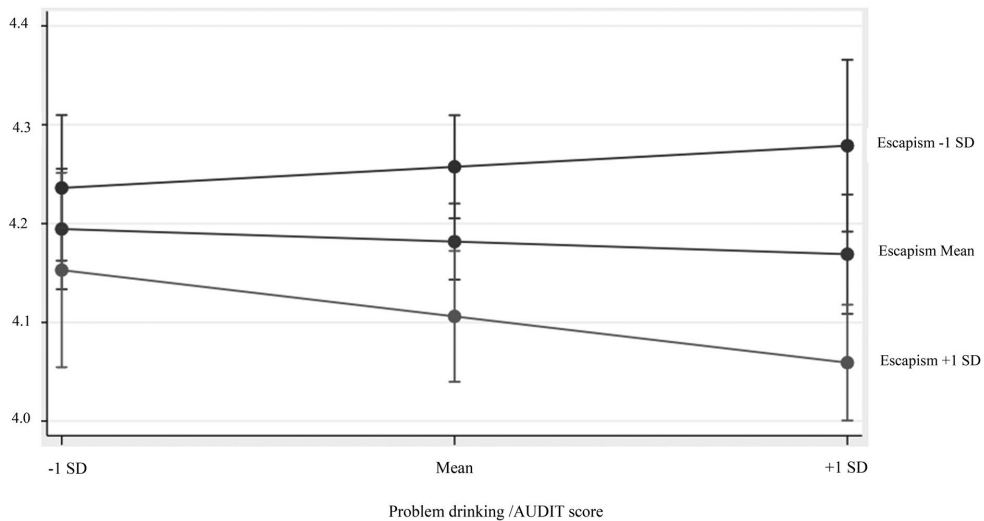
OR=odds ratio

**Table 3.** Life satisfaction as predicted by escapism, problem drinking and their interaction.

	Life satisfaction											
	Model 1: Escapism				Model 2: Problem drinking				Model 3: Interaction			
	B	CI 95%(B)	$\beta$	P	B	CI 95%(B)	$\beta$	P	B	CI 95%(B)	$\beta$	P
Escapism	-0.05***	-0.07, -0.03	-0.14***	0.000					-0.04***	-0.06, -0.02	-0.11***	0.001
Problem drinking				0.186	-0.02***	-0.03, -0.01	-0.11***	0.000	-0.00	-0.01, 0.01	-0.02	0.594
Escapism x Problem drinking									-0.004*	-0.007, -0.001	-0.08*	0.017
Age <sup>†</sup>	0.00	-0.002, 0.003	0.01	0.621	0.00	-0.002, 0.003	0.02	0.463	0.00	-0.001, 0.004	0.03	0.371
Male	-0.05	-0.13, 0.03	-0.04	0.207	-0.04	-0.12, 0.04	-0.03	0.287	-0.06	-0.14, 0.02	-0.04	0.125
Married <sup>††</sup>	0.29***	0.18, 0.39	0.19***	0.000	0.29***	0.19, 0.39	0.19***	0.000	0.28***	0.18, 0.38	0.18***	0.000
Divorced/ widow Education/	0.10	-0.04, 0.24	0.05	0.175	0.10	-0.04, 0.24	0.05	0.178	0.09	-0.05, 0.23	0.04	0.206
ref. Primary school	-0.02	-0.15, 0.10	-0.02	0.684	-0.00	-0.13, 0.12	-0.00	0.936	-0.03	-0.15, 0.09	-0.02	0.583
Secondary school	-0.04	-0.17, 0.09	-0.03	0.514	-0.04	-0.17, 0.09	-0.03	0.583	-0.05	-0.18, 0.08	-0.03	0.456
Higher education												
Socio-economic status/												
ref. Worker												
Employee	0.05	-0.04, 0.15	0.04	0.280	0.06	-0.04, 0.16	0.04	0.216	0.05	-0.05, 0.15	0.03	0.307
Manager	0.06	-0.05, 0.18	0.04	0.280	0.08	-0.04, 0.20	0.05	0.195	0.06	-0.06, 0.18	0.04	0.319
Constant	4.21***	3.99, 4.43		0.000	4.00***	3.80, 4.20		0.000	3.95***	3.76, 4.13		0.000
N				1 448				1 448				1 448
R <sup>2</sup>				0.07				0.06				0.07

\* $p \leq 0.05$ , \*\* $p \leq 0.01$ , \*\*\* $p \leq 0.001$   $\beta$ = unstandardized regression coefficient CI 95%=95% confidence interval  $\beta$ =standardized regression coefficient

<sup>†</sup> In the end of 2016 <sup>††</sup> marriage or common law marriage



**Figure 1.** Problem drinking with escapist motives predicts lower life satisfaction than problematic alcohol use alone.

addictive potential of nicotine is very strong (Le Foll & Goldberg, 2009), which obviously makes quitting smoking difficult. It is equally true that some people quit with minor effort, whereas others struggle for years with nicotine replacement therapies and still fail. Could it be that people with different levels of escapism have an unequal chance of withdrawing from smoking? One way to find out would be to measure the prevalence of escapist tendencies among people who have quit smoking successfully and those who have not been able to drop the habit despite trying.

Escapism also explained drug use. It is intuitive – and has been noted by past research – that people use drugs to escape from reality. However, continued drug use, not to mention drug addiction, can hardly be explained by escapism alone. Whether stimulation, sedation or an altered state of consciousness, the effects of many illegal drugs on the central nervous system are so intense that, presumably, long-term use is driven principally by physical and mental addiction instead of an individual's need to lower their self-awareness or stress levels. Buying illegal drugs requires clandestine measures and a certain level of participation in a criminal subculture, which can involve an intrinsic feeling of escape from the regular course of life.

In our study we did not find association between escapism and more frequent gambling. However, it is noteworthy how the results highlight the similarity of the relationship between escapism and use of different substances, much as the components model (Griffiths, 2005) posits that all addictions include a range of shared components like salience, tolerance, withdrawal, or relapse. By the same token, comorbidity (Grant et al., 2010) hints at the shared etiology of addictions.

An interesting continuum appears when we examine the interplay between escapism and addictive behaviors. On one hand, it is natural that escape serves as the initial motivation to engage in excessive activity. On the other, escapism as a negative reinforcer becomes increasingly important as

addiction progresses (Mathew et al., 2014). However, the development of an addiction is a more complex matter. What makes people return to the activity and start repeating it uncontrollably most likely involves both negative and positive reinforcers combined with neuroadaptation.

The current study has limitations. First, that escapism in this study was defined using alcohol-related questions may account partly for the strength of the positive association between escapism and drinking. Second, the AUDIT-C test may identify risky drinking habits less ambiguously than the questions used in this study, pertaining to smoking, drug use, or gambling. Third, the escapism variable was based on three questions, which is a relatively concise representation, and may not capture all aspects of the phenomenon. Fourth, the large data set did not allow us to consider situational factors that presumably affect escapist motives. Despite these limitations, the strength of the study is the high quality nationally representative data.

In all escapist activity, physiological and psychological aspects are intertwined, as understood in the sequence of mental suffering caused by burdensome self-awareness and the relief that comes from abandoning it (Baumeister, 1991). As the direct consequence of escapism is often a warm, fulfilling, or blissful experience that makes one forget the distress of self-actualization, it is quite plausible that escapism develops toward and sustains addiction in its various forms.


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# PUBLICATION II

## **Escapism and excessive online behaviors: A three-wave longitudinal study in Finland during the COVID-19 pandemic**

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Article

# Escapism and Excessive Online Behaviors: A Three-Wave Longitudinal Study in Finland during the COVID-19 Pandemic

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**Abstract:** Excessive online behaviors refer to harmful or disproportionate use of digital network applications. Such behaviors are likely to be associated with escapist motives. Our aim was to analyze whether escapism predicts excessive gambling, excessive gaming, and excessive internet use over time. A longitudinal sample of Finnish residents aged 18–75 years ( $n = 1022$ , 51.27% male) was surveyed at three time points during the COVID-19 pandemic in 6-month intervals: April 2021 (Time 1), October–November 2021 (Time 2), and April–May 2022 (Time 3). Of the original Time 1 respondents, 66.80% took part in the surveys at both Time 2 and Time 3. All surveys included measures for excessive gambling (Problem Gambling Severity Index), excessive gaming (Internet Gaming Disorder Test), and excessive internet use (Compulsive Internet Use Scale). Three escapism-specific questions were used to construct a dedicated escapism variable. Socio-demographic variables, alcohol consumption, and psychological distress were used as controls. The study was conducted with multilevel regression analyses using hybrid models. Our research showed that escapism had strong within-person effects on excessive gambling,  $B = 0.18$ ,  $p = 0.003$ ; excessive gaming,  $B = 0.50$ ,  $p < 0.001$ ; and excessive internet use,  $B = 0.77$ ,  $p < 0.001$  over time. The between-person effect of escapism was demonstrated on excessive gaming  $B = 0.91$ ,  $p < 0.001$ , and excessive internet use  $B = 0.61$ ,  $p = 0.036$ . Adverse societal events and uncertain times can manifest in excessive online behaviors motivated by escapism, highlighting a need to focus prevention efforts on healthy coping methods.

**Keywords:** escapism; addiction; excessive behaviors; internet use; gambling; gaming



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## 1. Introduction

Excessive online behaviors refer to harmful or disproportionate amounts of time or money spent using digital network applications [1,2]. Some forms of excessive online behaviors such as disordered gambling and digital gaming are recognized as behavioral addictions in contemporary disease classifications [3,4]. In the broadest meaning, excessive online behaviors encompass all internet use. An evolving trend is the blurring of boundaries between different forms of online activities, such as the convergence of online gambling and digital gaming [5].

Escapism is the tendency to distract oneself from real-life problems. It can also be conceived as shutting meanings out of one's mind and freeing oneself from self-awareness for a while [6]. Escapism has been identified as one of the key drivers behind online behaviors [7,8] in both adaptive and maladaptive ways [9]. Past research has indicated that escapism predicts excessive online behaviors irrespective of a competitive or collaborative context [10]. The desire to understand the drivers of excessive online behaviors has directed research toward the roles of motives [11] and social contexts [12].

The proliferation of social media has not only provided opportunities for networking and positive interaction but also laid ground for false or distorted self-presentation [13]. Research on adult Facebook users shows that people pursuing self-image goals on social

media are more inclined toward social comparison and envy [14]. The way our communications environment has evolved during the past decades suggests that pressures for higher self-awareness and escapism have increased. In addition to intolerable self-awareness, escapism may stem from external pressures such as work, relationships, financial worries, other personal problems, or adverse events causing stress and anxiety.

Our longitudinal study analyzed whether escapism predicts excessive gambling, excessive gaming, and excessive internet use. Longitudinal evidence investigating escapism and excessive online behavior over time is scarce and our study aims to fill this gap in the current literature. Our study is grounded on escape theory; related motivation and reinforcement research; avoidance coping literature; and empirical studies of escapism, addiction, and excessive online behaviors. Escape theory suggests that people are likely to feel guilty and to blame themselves for falling short of their standards and personal values. The real versus ideal self-discrepancy may become so burdensome that the individual needs to seek relief from excessive self-awareness [15]. To escape from self-actualization effectively means forgetting the responsibilities, demands, obligations, criticisms, and judgments stemming from daily life and instead engaging in an activity where it is possible to suppress conscious thinking for a moment. At the time of its introduction, escape theory hypothesized that excessive self-awareness may lead to increased drinking, disordered eating, religious exercise, masochism, or even suicide [6]. Considering the massive progress in online devices, services, and applications over the past thirty years, it has become highly relevant to build our understanding on escapist behaviors in the present-day context and better understand how excessive online behaviors may serve escapist purposes.

The study of escapism is essential because it recognizes the importance of avoidance motives as opposed to positively reinforcing motives in explaining the development of harmful repetitive behaviors. Instead of being a pleasure-seeking drive that pushes individuals toward excessive behaviors, escapism represents relief-seeking that pushes people away from their daily problems and worries. Examining escapism in connection with excessive online behaviors introduces an alternative approach to the pursuit of gratification while building on prior research on escapism and addiction.

### *1.1. Escapism and Excessive Gambling*

Escape-oriented gamblers tend to be motivated by a sense of relief, whereas players focused on task performance and action are more likely to be driven by reward winning [16]. Research has also identified a third category of gamblers: those with low emotional regulation needs [17,18].

Consistent evidence has shown that escapism is a risk factor for gambling problems [19–24]. However, when coupled with a relaxation component in both online and offline contexts, escapism tends to point toward non-problematic gambling as opposed to financially motivated players [25,26].

Earlier studies have suggested escapism motivation affects the choice of gambling type. In real-life contexts, escapist players tend to favor slot machines [27], but cards, dice games, and legal casinos also have been associated with escapism motivation [28].

### *1.2. Escapism and Excessive Gaming*

Escapism has been recognized as an immersive motive of online gaming [29] and a strong predictor of problematic digital gaming [30]. Higher levels of escapism have been associated with longer times spent playing digital games [31], gaming disorder [32], and a preference for virtual stimuli over real-life ones [33]. The evidence of escapism's connection to digital gaming is independent of player profile [34]. Escapism not only is a driver for adopting an alternative virtual reality for hedonic purposes but also explains continued online behaviors in competitive contexts such as eSports [10].

Although escapist gaming does not necessarily predict negative outcomes without underlying psychosocial problems [35], the social context of digital gaming does have a connection to mental health measures [12], and social alienation predicts problematic

digital gaming [30]. Particularly for young people, digital gaming may serve as a means of escape from the self, to avoid controversies related to real-life emotional development [36].

Digital, or online, gaming has been a popular pastime during the COVID-19 pandemic, but a concurrent risk exists where gaming activities develop into unhealthy behavioral patterns [37]. A cross-sectional natural experiment examining the effects of self-isolation and quarantine on adults during the pandemic found that isolated online gamers showed stronger problematic gaming symptomology and loot box spending compared to those who were not isolated [38]. A fear of contamination by germs was also found to associate significantly with a higher rate of excessive gaming. A study interviewing young gamers found escape motives to be among the most popular reasons for engaging in online gaming during the pandemic [39]. A recent systematic review of the role of escape motives in problematic online gaming confirmed the role of escapism in predicting internet gaming disorder and concluded a need for longitudinal evidence exists [40].

### 1.3. Escapism and Excessive Internet Use

Previous research has well-established the connection between escapism and excessive internet use [41,42]. Evidence has also suggested that a continuum exists from psychological distress through escapism and internet addiction to harmful real-life consequences [43]. Furthermore, escapism has been found to mediate the association between deficient emotional regulation and problematic internet use [44] and between internet gaming involvement and problematic internet use [45].

Exploring the association between escapism and excessive internet use in a longitudinal setting including a period of large-scale social isolation should provide valuable insight on the role of social relations in excessive online behaviors. Research conducted among adolescents during the COVID-19 pandemic reported increased levels of online activity, which—combined with COVID-related worries—predicted higher levels of escapism [46].

In our analyses, we used the concepts of excessive gambling, excessive gaming, and excessive internet use when referring to harmful levels of online behaviors. Each concept included various other definitions such as problematic, disordered, compulsive, addictive, or appetitive behaviors, respectively.

### 1.4. This Study

This longitudinal study took place during social isolation caused by pandemic restrictions, when negative views of self and incentives to escape from self-awareness were arguably more commonplace. Taking note of the basic tenets of the escape theory, we formulated four hypotheses to investigate whether escapism predicts excessive online behaviors over time. We examined both within-person and between-person changes. Our modelling strategy allowed us to separate these effects, which is important because people with escapist tendencies typically report higher levels of excessive behaviors in comparison to non-escapists. Our hypotheses were:

**Hypothesis 1 (H1).** *Within-person changes in escapism predict excessive gambling over time.*

**Hypothesis 2 (H2).** *Within-person changes in escapism predict excessive gaming over time.*

**Hypothesis 3 (H3).** *Within-person changes in escapism predict excessive internet use over time.*

**Hypothesis 4a–c (H4a–c).** *A higher between-person level of escapism is associated with (a) excessive gambling, (b) excessive gaming, and (c) excessive internet use.*

## 2. Methods

### 2.1. Participants and Procedure

The study participants were Finnish residents aged 18–75 years ( $n = 1530$ ) who responded to a longitudinal survey conducted in three parts. Data were collected for the first time point (T1) in April 2021; the first follow-up survey (at Time 2, T2) took place in October–November 2021, with a response rate of 78% ( $n = 1200$ ), and the second follow-up

survey (at Time 3, T3) took place in April–May 2022, with a 72% response rate versus T2 ( $n = 1100$ ). In total, 1022 respondents took part in all three waves, representing 66.80% of the original T1 respondents.

Data collection was accomplished in collaboration with a data provider company Norstat. The survey was designed by the authors and the researcher group, and Norstat customized it to their own platform. Participants were recruited from an online volunteer participant panel that Norstat administers. Norstat was responsible for data collection by sending an invite link to those volunteer participants in the online panel who matched the desired demographics of our study (i.e., 18- to 75-year-old Finnish residents in mainland Finland). Invitations to participate in the study were sent via email that included a link to the survey. Once data collection was completed, Norstat provided the anonymized data to the research group. Average response time was approximately 15 min (T1: 18.2 min, T2: 13.9 min, T3: 14.5 min). Participants were not directly offered incentives to partake in this study and their participation was completely voluntary, but Norstat does offer their panelists points and price draws that might help make taking surveys more attractive.

Participants taking part in all three waves ( $n = 1022$ ) were included in this study. They were 51.27% male, 48.43% female, and 0.03% other gender. They were from all areas of mainland Finland: 36.30% were from the Helsinki–Uusimaa region, 20.25% were from Southern Finland, 24.27% were from Western Finland, and 19.18% were from Northern and Eastern Finland. A nonresponse analysis of the final sample participants ( $n = 1022$ ) and T1 respondents ( $n = 1530$ ) showed that the final sample participants were slightly older (49.50 years vs. 46.67 years, respectively). No major drop out based on gender, geographical area, income, education, marital status, or occupational status occurred. In comparison to the general population census figures from Statistics Finland, our sample did not have major deviations. Analysis of our variables of interest in T1 showed that mean figures for excessive behaviors and escapism were lower among our final sample ( $n = 1022$ ) than original respondents ( $n = 1530$ ): excessive gambling (1.15 vs. 1.31), excessive gaming (1.12 vs. 1.34), excessive internet use (7.95 vs. 8.79), and escapism (0.83 vs. 0.94). This could be explained by our final sample being slightly older than the original sample. As our analysis focuses only on the respondents who have taken part in all three waves the drop-out does not have impact on results.

The research group checked the data after each data collection phase in accordance with the data quality protocol stored on the Open Science Framework website prior to the data collection. Different integrity and data quality checks were conducted, for example, attention checks and patterned response checks. The Ethics Committee of the Tampere Region in Finland approved the study in March 2021. Participation was voluntary for the participants, and they were informed about the study's aims.

## 2.2. Measures

### 2.2.1. Dependent Variables

**Excessive Gambling.** Excessive gambling was measured using the nine-item Problem Gambling Severity Index (PGSI), a standardized measure for the self-assessment of problem gambling behaviors in the general population in non-clinical context [47,48]. The PGSI has been validated and widely used in Finnish population studies assessing problematic gambling [49–52]. The items included questions such as “[In the past 6 months], have you bet more than you could really afford to lose?”, “Have you borrowed money or sold anything to get money to gamble?”, and “Has your gambling caused any financial problems for you or your household?” Due to the 6-month intervals between our data collection, we slightly modified the measure to inquire about gambling-related experiences in the past 6 months. Each response was scored on a scale from 0 to 3 (0 = never, 1 = sometimes, 2 = most of the time, 3 = almost always), producing a range from 0 to 27, with higher scores pointing toward risky or problematic gambling. Internal consistency of the PGSI variable was excellent throughout the survey based on McDonald’s omega (T1:  $\omega = 0.94$ , T2:  $\omega = 0.93$ , T3:  $\omega = 0.94$ ; Table 1).

**Table 1.** Descriptive statistics of the main study variables.

Continuous Variables	Range	Zero Order Correlations at T1								
		T1, M (SD)	T2, M (SD)	T3, M (SD)	1	2	3	4	5	
1. Escapism	0–10	0.83 (1.72)	0.82 (1.74)	0.80 (1.75)	1					
2. Excessive gambling	0–27	1.15 (3.02)	1.12 (2.98)	1.11 (3.03)	0.45 ***	1				
3. Excessive gaming	0–16	1.12 (2.36)	1.24 (2.52)	1.10 (2.29)	0.75 ***	0.53 ***	1			
4. Excessive internet use	0–53	7.95 (9.06)	8.20 (9.65)	7.85 (9.31)	0.51 ***	0.32 ***	0.49 ***	1		
5. Excessive drinking	0–12	3.54 (2.71)	3.46 (2.72)	3.42 (2.72)	0.09 **	0.17 ***	0.08 *	0.03	1	
6. Distress	5–30	12.24 (4.67)	12.20 (4.58)	12.28 (4.428)	0.42 ***	0.24 ***	0.31 ***	0.43 ***	0.07 *	1

Note. \*\*\*  $p < 0.001$ , \*\*  $p < 0.01$ . \*  $p < 0.05$ .

**Excessive gaming.** Excessive gaming was measured using the 10-item Internet Gaming Disorder Test (IGDT), an established gaming disorder screening scale with cross-culturally validated psychometric properties [53]. The IGDT has been used in prior studies in Finland and the Finnish version of the measure has been found to be psychometrically appropriate and suitable for assessing problematic gaming among adults [54–56]. Similar to what we did with the PGSI, we asked about gaming experiences in the past 6 months. Typical questions included “Have you ever [in the past 6 months] unsuccessfully tried to reduce the time spent on gaming?”, “Have you played a lot despite negative consequences?”, and “Have you risked or lost a significant relationship because of gaming?” The answers were recorded on a scale from 0 to 2 (0 = never, 1 = sometimes, 2 = often) constituting a minimum–maximum scale of 0–20, even though the range achieved in the study was 0–16. Higher scores indicated risky or problematic gaming. The IGDT variable had good internal consistency (T1:  $\omega = 0.88$ , T2:  $\omega = 0.90$ , T3:  $\omega = 0.88$ ; Table 1).

**Excessive Internet Use.** Excessive internet use was measured using the Compulsive Internet Use Scale (CIUS; [57]). In addition to its established position, concise structure, and ease of use, the CIUS scale has been psychometrically and culturally validated across different languages and populations [58,59]. Examples of the questions in the 14-item scale included “How often do you find it difficult to stop using the internet when you are online?”, “How often do you prefer to use the internet instead of spending time with others (e.g., friends, partner, children)?”, and “How often have you unsuccessfully tried to spend less time on the internet?” The response scale ranged from 0 to 4 (0 = never, 1 = seldom, 2 = sometimes, 3 = often, 4 = very often) and the total CIUS scores formed a minimum–maximum scale of 0–56, with higher scores indicating compulsive internet use. The range achieved in the study was 0–53. Internal consistency of the CIUS variable was excellent (T1:  $\omega = 0.95$ , T2:  $\omega = 0.95$ , T3:  $\omega = 0.95$ ; Table 1).

### 2.2.2. Independent Variable

**Escapism.** To measure escapism in online context, we used the Motivation to Play in Online Games-Revised (MTPI-R), a version of the escapism subscale Hagström and Kaldo [60] developed based on the Motivation to Play in Online Games model [29]. The MTPI-R scale excludes positive aspects of escapism as theoretically and empirically unstable and focuses only on negative escapism. This means learning to repeat a behavior is not reinforced by its positive effects but instead by avoiding negative emotions or other burdensome aspects of real life. This was consistent with our approach because, in this study, escapism was considered the tendency to distract oneself from reality or real-life problems, which is why we treated escapism as a negative concept.

In addition to measuring the relationship between escapism and online gaming, the MTPI-R scale has shown a strong correlation between negative escapism and internet addiction, suggesting that it is a suitable measure of escapism with respect to multiple forms of online behaviors. We defined our escapism variable based on the corresponding three questions from the MTPI-R scale: “How often do you play so you can avoid thinking about some of your real-life problems or worries?”, “How often do you play in order to avoid real-life social encounters or situations?”, and “How often do you continue to play so that you won’t have to deal with everyday problems and issues?” The answers were

recorded on a scale from 0 to 4 (0 = never, 1 = seldom, 2 = sometimes, 3 = often, 4 = always), producing a minimum–maximum scale of 0–12, with higher scores corresponding to higher escape motivation. Due to a low number of answers in the “4 = always” category, the range achieved in the study was 0–10.

The three escapism items appeared only once in the questionnaire after gambling- and gaming-related questions. Respondents were instructed to consider their gambling and gaming motives. Despite this, we considered our escapism measure as valid also for the investigations of excessive internet use. During the COVID-19 pandemic, the public gambling and gaming venues were closed and much of gambling and gaming took place online.

Internal consistency of the escapism variable was good across all time points (T1:  $\omega = 0.84$ , T2:  $\omega = 0.87$ , T3:  $\omega = 0.88$ ; Table 1). As the scale has not been previously validated in Finland, we ran additional confirmatory factor analysis (CFA) with maximum likelihood estimation on the scale. Factor loadings ranged, on average, from 0.71 to 0.89 in T1, from 0.77 to 0.92 in T2, and from 0.76 to 0.93 in T3. The fit of the estimated CFA met all the criteria of root mean squared error of approximation (RMSEA), standardized root mean squared residual (SRMR), comparative fit index (CFI), and Tucker–Lewis index (TLI) based on the criteria suggested by Hu and Bentler [61].

### 2.2.3. Control Variables

Socio-demographic control variables were reported as binary categories (0/1) and included age greater than or equal to 40 years (69.37%), male gender (51.27%), educational level of a master’s degree or higher (21.72%), status of currently working (51.57%), income over EUR 4000 a month (17.03%), being in a relationship (59.78%), and having children (62.23%). Excessive drinking as measured by the Alcohol Use Disorders Identification Test-Concise (AUDIT-C) [62]. The AUDIT-C is an extensively used brief measure for risky drinking. It has been validated in several contexts and populations and has been found to be a reliable and optimal screen of risky alcohol use (e.g., [63–65]). The measure has been also extensively used in Finland over the years [66–69]. Lastly, psychological distress was measured by using the Mental Health Inventory scale (MHI-5) [70]. The MHI-5 is a short form of the original Medical Outcomes Study: Short Form Health Survey, measuring psychological and emotional wellbeing. The MHI-5 includes five items that screen for general mental health and mood disorders such as depression and anxiety. It is a commonly used and sensitive measure and has shown to perform well in different populations [71,72]. Both the AUDIT-C and MHI-5 variables served as continuous covariates.

### 2.3. Statistical Methods

The focus of our study was to analyze the longitudinal effects of reported escapism on excessive online behaviors during social isolation. The analyses were conducted with linear multilevel regression using hybrid models. A clear upside of hybrid models is their applicability to within-person effects over numerous time points while still allowing the examination of between-person differences [73]. To control within-person estimation bias, hybrid models were compared with standard fixed effect models. Stata 17.0 software (StataCorp LLC, College Station, TX, USA) was used throughout the analyses.

Descriptive statistics in Table 1 include a list of the study variables with the means and standard deviations across the three measured time points. Zero-order correlations of the variables at T1 and McDonald’s omega coefficients for all time points are specified for each variable. Socio-demographic control variables and their percentages are reported in the text. Table 2 reports the final multilevel hybrid regression models showing both within-person effects and between-person effects and the controls that were also interpreted as between-person effects. Our main variable of interest was escapism and especially its within-person effects on the dependent variables of excessive gambling, excessive gaming, and excessive internet use.

Table 2. Hybrid models showing within-person and between-person effects on excessive online behaviors.

	Excessive Gambling					Excessive Gaming					Excessive Internet Use							
	B	SE (B)	95 %	CI	Z	p	B	SE (B)	95 %	CI	Z	p	B	SE (B)	95 %	CI	Z	p
<b>Within-person effects</b>																		
Escapism	0.18	0.06	0.06	0.29	2.93	0.003	0.50	0.05	0.41	0.60	10.08	<0.001	0.77	0.14	0.49	1.05	5.41	<0.001
Excessive gambling	-	-	-	-	-	-	0.21	0.04	0.13	0.29	4.93	<0.001	0.53	0.12	0.28	0.77	4.22	<0.001
Excessive internet use	0.23	0.05	0.13	0.33	4.43	<0.001	-	-	-	-	-	-	0.53	0.14	0.25	0.82	3.71	<0.001
Excessive drinking	0.04	0.01	0.02	0.06	4.11	<0.001	0.04	0.01	0.02	0.06	4.03	<0.001	-	-	-	-	-	-
Distress	0.09	0.04	0.00	0.17	2.08	0.038	-0.03	0.03	-0.09	0.04	-0.79	0.427	0.47	0.11	0.25	0.68	4.29	<0.001
	0.00	0.01	-0.03	0.02	-0.16	0.876	0.02	0.01	-0.01	0.04	1.40	0.162	0.13	0.04	0.05	0.22	3.02	0.003
<b>Between-person effects</b>																		
Escapism	0.20	0.19	-0.17	0.56	1.07	0.285	0.91	0.05	0.81	1.02	17.22	<0.001	0.61	0.29	0.04	1.19	2.09	0.036
Excessive gambling	-	-	-	-	-	-	0.14	0.04	0.07	0.22	3.76	<0.001	0.10	0.12	-0.13	0.33	0.87	0.385
Excessive gaming	0.59	0.14	0.32	0.86	4.26	<0.001	-	-	-	-	-	-	1.30	0.19	0.92	1.67	6.73	<0.001
Excessive internet use	0.01	0.02	-0.02	0.05	0.83	0.409	0.04	0.01	0.03	0.06	5.81	<0.001	-	-	-	-	-	-
Excessive drinking	0.13	0.04	0.06	0.21	3.47	0.001	0.00	0.01	-0.03	0.03	0.20	0.840	-0.07	0.08	-0.23	0.10	-0.81	0.419
Distress	0.03	0.02	-0.01	0.07	1.68	0.094	-0.04	0.01	-0.06	-0.02	-4.23	<0.001	0.47	0.07	0.34	0.61	6.94	<0.001
<b>Controls</b>																		
Male	0.03	0.15	-0.27	0.33	0.19	0.846	0.28	0.08	0.13	0.43	3.71	<0.001	-1.90	0.42	-2.73	-1.08	-4.52	<0.001
Age	0.02	0.01	0.00	0.03	2.50	0.013	0.00	0.00	-0.01	0.00	-1.41	0.160	-0.14	0.02	-0.18	-0.11	-7.93	<0.001
Master's degree or higher	-0.30	0.14	-0.57	-0.02	-2.11	0.035	-0.08	0.08	-0.23	0.07	-1.01	0.310	0.59	0.52	-0.43	1.60	1.13	0.258
Working	0.30	0.16	-0.01	0.60	1.89	0.059	-0.02	0.08	-0.18	0.15	-0.21	0.835	-0.69	0.47	-1.61	0.24	-1.45	0.146
High income	-0.06	0.21	-0.31	0.76	-0.47	0.342	-0.04	0.09	-0.23	0.14	-0.45	0.652	-0.19	0.49	-1.15	0.77	-0.40	0.691
In official relationship	-0.12	0.16	-0.76	0.45	-0.42	0.187	-0.05	0.08	-0.20	0.11	-0.59	0.554	-0.63	0.44	-1.50	0.24	-1.41	0.158
Children	0.17	0.17	-0.15	0.50	1.03	0.304	0.10	0.09	-0.07	0.27	1.17	0.243	0.97	0.45	0.09	1.84	2.16	0.031

B = regression coefficients, p = p-value for statistical significance, Z = z-value for statistical effect.

### 3. Results

Table 1 shows the changes in excessive online behaviors and escapism over time. The changes were not statistically significant, except for the increase in excessive gaming at T2 in comparison to T1 and the decrease in excessive gaming at T3 in comparison to T2. In addition, the control variables did not significantly change over time in comparison to the general levels. The zero-order correlations at T1 showed escapism was associated with excessive gambling, excessive gaming, excessive internet use, excessive drinking, and psychological distress (see Table 1).

Analyses based on the hybrid models indicated robust and consistent connections existed between escapism and excessive gambling, excessive gaming, and excessive internet use (Table 2). Escapism had strong and independent within-person effects on excessive gambling,  $B = 0.18, p = 0.003$ ; excessive gaming,  $B = 0.50, p < 0.001$ ; and excessive internet use,  $B = 0.77, p < 0.001$ . Hence, over time, increasing escapism experienced by the respondents led to higher levels of all studied excessive online behaviors.

The between-person effects demonstrated respondents with escapist tendencies differed from non-escapists across the three measured time points. People seeking escapist distractions from online content showed higher degrees of excessive gaming,  $B = 0.91, p < 0.001$ , and excessive internet use,  $B = 0.61, p = 0.036$ . Additionally, we found a between-person effect of escapism on excessive gambling, but this association was no longer statistically significant in the final model reported in Table 2.

Our observation of all covariates showed excessive gambling had within-person effects on excessive gaming,  $B = 0.21, p < 0.001$ , and excessive internet use,  $B = 0.53, p < 0.001$ . Likewise, the respondents who were more engaged in excessive gaming showed higher within-person effects on excessive gambling,  $B = 0.23, p < 0.001$ , and excessive internet use,  $B = 0.53, p < 0.001$ . Excessive internet use indicated higher within-person effects on excessive gambling,  $B = 0.04, p < 0.001$ , and excessive gaming,  $B = 0.04, p < 0.001$ . It is noteworthy that all different forms of excessive online behaviors in this study had independent statistically significant within-person effects on each other. Excessive drinking,  $B = 0.47, p < 0.001$ , and psychological distress,  $B = 0.13, p = 0.003$ , each had a within-person effect on excessive internet use, suggesting both increased alcohol consumption and higher distress independently led to greater excessive internet use. Drinking also predicted excessive gambling,  $B = 0.09, p = 0.038$ .

Regarding the between-person effects of the covariates, excessive gamblers reported more excessive gaming,  $B = 0.14, p < 0.001$ , whereas those more involved in excessive gaming showed higher propensities to excessive gambling,  $B = 0.59, p < 0.001$ , and excessive internet use,  $B = 1.30, p < 0.001$ . Excessive internet users reported more excessive gaming than non-excessive internet users,  $B = 0.04, p < 0.001$ . Furthermore, the respondents consuming more alcohol were more inclined to gamble excessively,  $B = 0.13, p = 0.001$ , whereas those experiencing psychological distress were less involved in excessive gaming,  $B = -0.04, p < 0.001$ , and more inclined toward excessive internet use,  $B = 0.47, p < 0.001$ .

Of the control variables, men reported more excessive gaming,  $B = 0.28, p < 0.001$ , and less excessive internet use,  $B = -1.90, p < 0.001$ . Older respondents showed a higher effect on excessive gambling,  $B = 0.02, p = 0.013$ , and a lower effect on excessive internet use,  $B = -0.14, p < 0.001$ . Higher education was linked with less excessive gambling,  $B = -0.30, p = 0.035$ , whereas having children indicated more excessive internet use,  $B = 0.97, p = 0.031$ .

### 4. Discussion

#### 4.1. Main Findings

Building on escape theory and related motivation and escapism literature, this longitudinal study analyzed whether escapism predicts excessive gambling, excessive gaming, and excessive internet use over time. Our results demonstrate a sustained and robust connection between escapist motivation and excessive online behaviors. Escapism had strong and independent within-person effects on excessive gambling (H1), excessive gaming (H2), and excessive internet use (H3), indicating all studied online behaviors tend to increase



when a person is undergoing a period of heightened escapism. Between-person effects of escapism were demonstrated on excessive gaming (H4b) and excessive internet use (H4c).

Contrary to the view that motivations are stable characteristics of a person, recognizing the changing nature of human drives over time is essential. Although satisfying a need normally takes away the appetite for that activity or substance for a short period, in the longer run, the same drive is likely to come back in a strengthened form [74]. This is consistent with our within-person findings, where the increasing levels of escapism experienced by the respondents led to higher levels of all studied excessive online behaviors.

Among other findings, this study demonstrated reciprocal within-person and between-person effects between excessive online gambling and excessive online gaming. This is concordant with past evidence on the neurobiological similarities between problematic gambling and internet gaming disorder [75]. The effects observed in our study could also be reflective of past research, indicating a larger convergence between online gambling and digital gaming (e.g., [76]). Digital gaming is becoming increasingly characterized by rewards and monetary prizes, whereas online gambling has incorporated social aspects and elements of skill. These structural similarities and converging features seem to appeal especially to problem gamblers [77]. Overall, our results contribute to the etiological debate around these excessive behaviors by presenting escapism as a common denominator behind both.

#### 4.2. Theoretical and Empirical Implications

The present study contributes to the debate about the escape theory. Across three decades, the means of escape have evolved, largely by technological development. Before the age of the internet, the primary means of escaping intolerable self-awareness were intoxication, spirituality, or extreme forms of real-life behaviors. Today, online applications provide easily accessible content with which a connection to escapism has been shown by research and proven in the longitudinal setting of our paper. A theoretically solid reasoning would say that between-person effects of escapism in this study were mainly driven by individual levels of self-awareness, along the lines of the escape theory. Research on false Facebook-selves gives some support for the idea that escapist tendencies based on high self-awareness and an inflated self-image could be relatively stable characteristics [13].

The results of this three-wave study also emphasize the role of changing external circumstances as a driver for escapism. It is possible that excessive gamblers, gamers, and internet users might have been managing and coping with worries about the COVID-19 pandemic by escaping the real-life challenges to excessive online behaviors [38]. It is logical to speculate that the adaptation to changing pandemic circumstances was most likely reflected by the within-person effects of escapism in our study. Examining escapism in connection with excessive behaviors is relevant because it introduces an alternative approach to pleasure-seeking activities. A commonsense explanation for consuming a substance or engaging in a particular activity is the good feeling it produces. In contrast, doing something with an escapist motive involves avoiding negative emotions as opposed to pursuing good sensations. Given past research showing that avoiding something bad is a stronger psychological motive than gaining something good [78], a clear case exists to study escapism as a driver for excessive behaviors. Considering the appetitive nature of online applications, and how people use them for self-enhancement, an interesting topic for future research would be to what extent escapist use of social media platforms generates further escapism.

#### 4.3. Practical Implications

Our findings lay out a new perspective to escapism, not only as a binary category but also as an alternating state of mind. Escapist coping is largely considered to provide a momentary relief instead of sustainable wellbeing, and it can lead to additional problems the excessive behaviors cause. Prevention and intervention efforts should focus on providing individuals with information, resources, and healthy ways to cope with uncertainty and

adversity. One way to help people avoid excessive engagement in online behaviors is to strengthen their ability to stay present and to help them recognize when online behaviors turn into affect regulation.

#### 4.4. Strengths and Limitations

The longitudinal design of the study is a key strength of this paper. The three time points of data collection conducted in 6-month intervals allowed us to monitor and analyze changes in excessive online behavior patterns combined with reported levels of escapism. The timing of the study further supports the contribution of our research, as it was carried out during a period of social isolation and intermittent lifts of COVID-19 restrictions. Therefore, the study provides insight into coping with uncertainty and stressful events. Another clear strength of the study is the use of hybrid regression models, which made it possible to simultaneously examine within-person and between-person effects of escapism on excessive online behaviors. The principal limitation of this study is related to location because the study was conducted entirely in Finland. Cultural differences in adapting to adverse societal circumstances, availability of online services, and public social and health-care policies on isolation procedures may vary between countries. Additionally, it could be considered as a limitation that the context of our escapism measure was in gambling and gaming, and not in excessive internet use. However, as much of gambling and gaming took place online during the COVID-19 pandemic and even in normal circumstances, they increasingly move to online contexts, the escapism measure can be considered relevant for internet use as well. This is further highlighted in our results, showing an association between escapism and excessive internet use while controlling for the effects of excessive gambling and excessive gaming.

## 5. Conclusions

Our longitudinal study found that escapism predicted excessive online behaviors. The study was based on the escape theory and escapism literature, and it provided much needed longitudinal research evidence on the role of escapism in connection with online behaviors. The findings of the study indicate escapism is a highly relevant coping mechanism that could help us better understand risky online behaviors. In our study, the COVID-19 pandemic may have induced escape-motivated online behaviors, but it is equally possible that part of the perceived escapism originated from relatively stable psychological factors. It is meaningful to conclude that escapism is a multi-faceted phenomenon, that has both social and psychological origins.

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# PUBLICATION III

**What are escapists made of, and what does it have to do with excessive gambling and gaming?**

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# What are escapists made of, and what does it have to do with excessive gambling and gaming?

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## Abstract

Research shows that escapism and frustration of basic psychological needs are linked with gambling and gaming problems, but an effect of escapism combined with restricted autonomy, competence, and relatedness on excessive gambling and gaming remains unclear. The purpose of this study is to identify shared characteristics of people who engage in escapist behavior and analyze to what extent the interaction of escapism and basic psychological need frustration predicts excessive gambling and gaming. We conducted a five-wave longitudinal survey with Finnish residents aged 18–75 years ( $n = 1530$ , 50.33% male) from April 2021 (T1) to April–May 2023 (T5). Measures included the Problem Gambling Severity Index, the ten-item Internet Gaming Disorder Test, and three escapism-specific questions. We analyzed the Basic Psychological Need Satisfaction and Frustration Scale, sociodemographic controls, and personality traits using multilevel regression models. We found that escapism was related to autonomy frustration, competence frustration, male gender, impulsivity, openness, and having a significant other who has experienced gambling problems. Escapism predicted excessive gambling, and competence frustration moderated this association. Escapism also predicted excessive gaming, and autonomy frustration and competence frustration moderated this association. Research on and treatment of excessive gambling and gaming should consider these underlying factors driving escapism.

**Keywords** Excessive gambling · Excessive gaming · Escapism · Self-determination · Autonomy · Competence

Escapism has become a central concept in explaining the motives for activity engagement. Researchers have noted that escapism fundamentally involves redirecting one's full attention to a specific behavior. Immersive engagement in an activity involves three fundamental elements, task absorption, temporary dissociation, and reduced self-evaluation, which together form the essence of escapism under the common denominator of action attention

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(Stenseng et al., 2012). The idea of action attention encompasses healthy and unhealthy aspects of escapism. Positive escapism may resemble deep, undisturbed concentration on interesting, wellness-promoting, or otherwise rewarding activities, such as the attainment of the flow state (Csikszentmihalyi, 2014). In contrast, negative escapism serves to distract one from problems, worries, or unpleasant thoughts. In addition to situational stress coping, the underlying reasons for escapism may include anxiety (Boursier et al., 2021), trauma (Holmes et al., 2023), guilt (Kalpokas, 2018), and excessive self-awareness and self-evaluation (Baumeister, 1991). Escapism has also been linked with addictive behaviors (Hagfors et al., 2022; Jouhki & Oksanen, 2022; Jouhki et al., 2022; Király et al., 2015; Melodia et al., 2020), such as gambling and gaming, which are the focus of this study. Overall, escapism is perceived as an unhealthy motivation for leisure activities (Weybright et al., 2019) and as such may require a reasonable amount of moderation.

Escapist motivation has also been studied in the framework of the regulatory-focus theory (RFT) (Stenseng et al., 2012). According to the RFT, people have two fundamental motivational orientations that guide their decision making and behavior (Higgins, 1997). A promotion-guided person seeks positive affect by achieving an expected state of well-being, success, happiness, or pleasure whereas a prevention-guided individual wants to avoid negative affect by fulfilling their duties and obligations (Brockner & Higgins, 2001; Lanaj et al., 2012). Although treating these two avenues as principal drivers behind escapism may be a meaningful approach to explaining situational behavior motives (e.g., Stenseng et al., 2021), we believe the RFT is not optimally suited for defining permanent characteristics of people with escapist tendencies. Having a promotion focus or a prevention focus is not related to personality; instead, promotion guidance or prevention guidance are regarded as momentary states of mind (Higgins, 2012). Therefore, people may approach the same situation with different escapist orientations depending on their current mood.

The self-determination theory (SDT) presents a comprehensive account of psychological processes and social context, circumstances, or conditions that affect human thriving and well-being (Ryan & Deci, 2017). One of its six sub-theories, the basic psychological needs theory, suggests that to secure an individual's personal development and sustainable well-being, the basic needs for autonomy, competence, and relatedness should be satisfied. Autonomy refers to an individual's need to make their own decisions, be in control, and have a choice whereas competence refers to the feeling of being able to complete tasks and work effectively. Relatedness refers to the need to have meaningful encounters and relationships with other people. The SDT states that satisfaction of these inherent psychological needs increases self-motivation and mental well-being, but their frustration results in reduced motivation and overall wellness (Ryan & Deci, 2000). Sources of motivation can vary: motivation can be driven by intrinsic or extrinsic factors, thus impacting the subsequent behavior's quality and efficacy. When an individual is intrinsically motivated, they engage in an activity or behavior because it is inherently enjoyable, interesting, or personally satisfying. An extrinsically motivated individual, in contrast, engages in an activity to achieve an external outcome or avoid a negative consequence (Ryan & Deci, 2017). Research has shown that basic needs are common across cultures (Chen et al., 2015; Church et al., 2013) and age (Lataster et al., 2022) and that their satisfaction is associated with well-being independent of socioeconomic status (Martela et al., 2023). Frustration of these basic needs hampers human growth and vitality, leading to adverse well-being consequences (Jungert et al., 2022).

Autonomy has been considered the most important facilitator in satisfying all three basic needs. However, in different circumstances, any of the three basic needs may take precedence over the other two due to their effect on well-being outcomes (Ryan & Deci,

2017). High autonomy is associated with less defensive coping strategies for stressful life situations. Therefore, people with higher self-determination are less likely to engage in self-handicapping behaviors (Knee & Zuckerman, 1998). For example, in highly performance-oriented contexts, such as competitive sports, coach autonomy support has been linked to higher need satisfaction, which promotes vitality, whereas a controlling coach can produce perceptions of need thwarting and subsequent depression among athletes (Bartholomew et al., 2011).

Recently, the role of escapism and frustration of the basic psychological needs has started to draw interest in the research of excessive behaviors. Evidence suggests that the frustration of basic psychological needs for autonomy, relatedness, and competence is connected to gambling and gaming problems (Hagfors et al., 2023; Vuorinen et al., 2022; Mills et al., 2020; Allen & Anderson, 2018). In contrast, people experiencing greater autonomy are less likely to engage in escapist gambling and have fewer gambling problems (Rodriguez et al., 2015). Excessive gambling refers to the preoccupation with gambling and spending increasing amounts of money in gambling regardless of the consequences and often causes severe emotional, financial, and relationship harm (Fabiansson, 2010). Excessive gambling affects not only the gambler but also their significant others in the form of stress, worry, arguments, sleep problems, and financial troubles (Lind et al., 2022).

Research on digital gaming has consistently shown that escapism is connected to more frequent playing of mobile games (McCauley et al., 2017; Melodia et al., 2020). Of the broad components of gaming motivation—achievement, immersion, and socializing—escapism has been identified as a sub-component of immersion. A systematic review and meta-analysis examining gaming motivations revealed the very strong connection between escapism and internet gaming disorder (IGD; Wang & Cheng, 2022). Excessive gaming refers to continuous and repeated involvement in digital gaming, which often leads to significant harm in other areas of life, such as studying, work, and/or relationships (Feng et al., 2017). The same results indicate the connection between escapism and IGD is especially prominent in individualistic cultures. Evidence also suggests the escape motive mediates the association between need frustration and IGD in mobile multiplayer online battle arena games (T'ng et al., 2022). In-game need frustration is associated with negative game-related and general well-being-related outcomes, including escapist motivations, stress, and problematic gaming (Kosa & Uysal, 2022).

A conceptual distinction has been made between escapism and escape in previous gaming research. While both can be viewed as psychological movements from the physical world to a virtual one, escapism has been presented as a more moderate, bidirectional, and temporary flight to a game environment and back. Hence, an individual resorting to escapism may actively try to improve their unsatisfactory situation by occasional engagement in gaming, which could be interpreted as a positive adaptation process. By contrast, escape represents a more enduring and unidirectional abandonment of undesirable real-life circumstances with no intention to return. (Giardina et al., 2023; Calleja, 2010). In this dimension, escape comes out as a more unhealthy and rigid concept than escapism. Additionally, Giardina et al. (2023) argue that escapism and escape should be separated qualitatively, and that neither concept should be treated as positive or negative, but rather “adaptive”. Considering the current state of research, they see escapism and escape “as relatively stable characteristics of the relationships that individuals have with videogames, rather than a motivational push that changes episodically” (Giardina et al., 2023, p 1078). While we commend the theoretical logic behind the concepts of escapism and escape, and

their adaptability, we maintain only one concept of escapism in our study for reasons of unambiguity.

Acknowledging the theoretical distinctions raised by Giardina et al. (2023) and Melodia et al. (2020) about adaptability of escapism, as well as the justification behind self-expansion type of escapism promoting positive affect (Stenseng et al., 2012, 2021, 2023), we find sustained rationale to base our study on the negative aspects of escapism. Even if the escapist activity produced immediate beneficial outcomes, such as happiness, pleasure, or emotion regulation, the underlying driver in escapist behavior could still be avoidance of painful, traumatic, or disturbing thoughts. Adverse motives behind escapism may be seen as particularly commonplace when addressing addictive behaviors like excessive gambling and gaming. Evidence also suggests that positive aspects of escapism are theoretically and empirically unstable, and the measurement of escapist behavior should be based on the negative attributes of escapism (Hagström & Kaldo, 2014). In the present study, we will regard escapism as a negatively charged avoidance motive.

This article addresses important gaps in addiction and escapism research by integrating relevant perspectives from areas that have not yet been fully explored together but have the potential to offer valuable insights. Earlier studies tend to rely on cross-sectional designs mostly with limited populations. To overcome these limitations, we will use data from a five-wave longitudinal survey with a nationally representative sample of respondents. The robust dataset will allow us to identify the shared and enduring characteristics and personality traits of people who are driven by escapist behavior motives. Earlier research on the relation between escapism and key personality traits is scarce, and the results are controversial. De Hesselle et al. (2021) identified a positive correlation between escape motive and neuroticism and negative associations between escape motive and agreeableness, extroversion, conscientiousness, and openness. On the other hand, a gaming study by Park et al. (2011) suggests extroversion and agreeableness predict escapism. In the second part of this paper, we analyze what type and how strong of an effect escapism has on excessive gambling and gaming when combined with restricted autonomy, competence, and relatedness. We believe our results make a novel and relevant contribution to the field by clarifying the sustained characteristics behind escapist behavior and analyzing the interaction between escapism and frustration of basic psychological needs as predictors of excessive gambling and gaming.

The objectives of our study are

1) to examine to what extent the frustration of the basic needs of autonomy, competence, and relatedness predict escapism and what personality and sociodemographic characteristics are associated with escapism and

2) to determine whether frustration of basic psychological needs moderates the relationship between escapism and excessive gambling and gaming.

## Methods

### Participants and procedure

The study participants were Finnish residents between 18 and 75 years old ( $n = 1530$ ). The initial survey took place in April 2021 (T1); the first follow-up (T2) in October–November 2021, with a response rate of 78 % ( $n = 1198$ ); the second follow-up (T3) in April–May 2022 (response rate 91 % vs. T2,  $n = 1095$ ); the third follow-up (T4) in October–November

2022 (response rate 92 % vs. T3,  $n = 1004$ ); and the fourth follow-up (T5) in April–May 2023 (response rate 93 % vs. T4,  $n = 934$ ).

The survey was designed by the authors and the researcher group and executed together with a data collector company, Norstat, who adjusted the survey's content to meet their technical requirements. Norstat initiated the data collection by sending an email invitation link to online panelists matching the targeted demographic profile (Finnish mainland residents aged 18 to 75 years). The survey took approximately 15 min to complete (T1: 18.2 min, T2: 13.9 min, T3: 14.5 min, T4: 15.4 min, T5: 16.5 min). Norstat delivered the completed survey data in an anonymized format to the research group. Participation in the study was voluntary, and no direct incentives or bonuses were afforded to the participants, apart from points or price draws Norstat offered the panelists, which may have facilitated survey recruitment.

This study was restricted to 1095 participants who participated in the T3 survey, which included personality measures. The participants were 50.14 % male, and their mean age was 48.73 years ( $SD = 16.17$ ). They were geographically spread across mainland Finland proportionate to the general population density: 36.53 % were from the Helsinki–Uusimaa region, 20.27 % were from Southern Finland, 24.29 % were from Western Finland, and 18.90% were from Northern and Eastern Finland. A nonresponse analysis comparing the final sample of respondents ( $n = 1095$ ) to T1 participants ( $n = 1530$ ) showed a small difference in age at T1 (48.73 vs 46.67), but no major dropout rate was detected based on respondent location or control variables. Furthermore, our sample may be considered well aligned with the general population census figures from Statistics Finland, showing no major deviations.

The study's data quality protocol was stored on the Open Science Framework website before the data collection. After each wave, the research group verified the data collection in accordance with the protocol and applied quality and integrity measures, such as attention checks and patterned-response checks. The Ethics Committee of Tampere Region in Finland approved the study in March 2021. Participation was voluntary, and the participants were informed about the study and its aims.

## Measures

**Excessive gambling.** The severity of gambling problems was assessed with the Problem Gambling Severity Index (PGSI; Ferris & Wynne, 2001), a nine-item standardized scale to measure gambling-related harm in general-population surveys and commonly used in national gambling studies in Finland (e.g., Salonen et al., 2020). The PGSI has been found to be psychometrically valid and reliably measure the severity of gambling problems in a non-clinical context across different populations (Currie et al., 2013; Holtgraves 2009). The PGSI is a validated subset of the Canadian Problem Gambling Index. Whereas the original PGSI measures the risk of gambling behavior over a 12-month period, we focused our questions on perceived gambling problems over the past 6 months due to our study's longitudinal setting (e.g., "Thinking about the past six months, how often have you borrowed money or sold anything to gamble?"). The self-assessment questions were scored on a four-point scale (0 = never, 1 = sometimes, 2 = most of the time, 3 = almost always), adding up to total scores between 0 and 27, with higher figures suggesting increasingly risky or problematic gambling. Internal consistency of the excessive gambling variable based on McDonald's omega was excellent at all the time points (T1:  $\omega = 0.95$ , T2:  $\omega = 0.94$ , T3:  $\omega = 0.94$ , T4:  $\omega = 0.94$ , T5:  $\omega = 0.94$ ).

**Excessive gaming.** The ten-item Internet Gaming Disorder Test (IGDT-10) was applied to screen gaming disorders and excessive levels of gaming among the respondents. The IGDT is a widely used screening instrument with cross-culturally validated psychometric properties to assess IGD (Király et al., 2017, 2019). In the Finnish context, the IGDT-10 has been proven psychometrically appropriate and suitable for analyzing problematic gaming among adult respondents (Savolainen et al., 2022; Vuorinen et al., 2022; Männikkö et al., 2019). A recent study comparing the IGD symptoms between the WHO and the APA frameworks validated the IGDT-10 for use in Sweden providing further evidence on its suitability to the Nordic context (Bäcklund et al., 2024). Again, our study's longitudinal setting made it necessary to focus the measure's items on the past six months, (e.g., "Have you ever [during the past six months] jeopardized your school or work performance because of gaming?"). The participants responded on a scale of 0 to 2 (0 = never, 1 = sometimes, 2 = often), producing a range of 0–20. Higher scores indicate risky or problematic gaming. Internal consistency of the excessive gaming variable was good (T1:  $\omega = 0.89$ , T2:  $\omega = 0.90$ , T3:  $\omega = 0.89$ , T4:  $\omega = 0.90$ , T5:  $\omega = 0.90$ ).

**Escapism.** In our study, escapism was regarded as an urge to seek distraction from reality or real-life problems or worries. We applied the Motivation to Play in Online Games-Revised (MTPI-R) scale by Hagström and Kaldo (2014), a modified version of the Motivation to Play in Online Games model (Yee, 2006). The MTPI-R scale includes only negative aspects of escapism, excluding positive interpretations of the concept and making the scale theoretically and empirically more stable. Among different options for escapism scale, the MTPI-R proved to be the most suitable for the purposes of the present study due to its conciseness, good internal consistency, and applicability to both gambling and gaming contexts. The questions of the MTPI-R connect the escapism factor directly to the frequency of gambling and gaming, a vital component in the study of excessive behaviors.

Three questions from the MTPI-R scale were used to define the escapism variable: "How often do you play so you can avoid thinking about some of your real-life problems or worries?" "How often do you play in order to avoid real-life social encounters or situations?" and "How often do you continue to play so that you won't have to deal with everyday problems and issues?" The participants responded on a scale from 0 to 4 (0 = never, 1 = seldom, 2 = sometimes, 3 = often, 4 = always), producing a total-score range of 0–12. Higher scores indicate more intense escapism. Internal consistency of the escapism variable was good across all time points (T1:  $\omega = 0.87$ , T2:  $\omega = 0.87$ , T3:  $\omega = 0.88$ , T4:  $\omega = 0.86$ , T5:  $\omega = 0.89$ ).

**Need Frustration.** Frustration of the basic psychological needs was measured by aggregating the frustration subscales of the Basic Psychological Need Satisfaction and Frustration Scale (BPNSFS; Chen et al., 2015). The BPNSFS has demonstrated strong psychometric properties across different populations and contexts (Cardella et al., 2020; Chen et al., 2015; Kuźma et al., 2020). It has been extensively used in research to explore the relationship between need frustration and fulfillment, well-being, and behavior across various settings, such as work, education, relationships, addiction, and mental health (Cantarero et al., 2021; Mills & Allen, 2020; Mills et al., 2021; Yu et al., 2020), making it an essential and robust measure for our study. Of the 24 items in the full scale, 12 were applied in the frustration subscales: 4 items measuring perceived frustration in autonomy (e.g., "My daily activities feel like a series of duties"), 4 items measuring relatedness frustration (e.g., "I feel the relationships I have are only superficial"), and 4 items measuring competence frustration (e.g., "I feel unsure of my abilities"). The responses to each item were recorded only at T1 on a 7-point Likert scale ranging from 1 (not at all true)



to 7 (totally true). The three frustration subscales produced a total-score range of 4–28. Higher scores indicate greater frustration, but the range in the relatedness frustration score was 4–27. The internal consistency was good for the autonomy frustration subscale ( $\omega = 0.84$ ), excellent for the competence frustration subscale ( $\omega = 0.90$ ), and good for the relatedness subscale ( $\omega = 0.85$ ). Our analysis focused entirely on basic-need frustration and therefore omitted the satisfaction subscales.

We used a series of sociodemographic factors and personality traits as control variables. Standard sociodemographic controls were selected based on their applicability in gambling and gaming research (see Gainsbury et al., 2015; Slack et al., 2022). They included age ( $M = 48.73$ ,  $SD = 16.17$  at T1) and dummy variables (0/1) for gender (male, 50.14%), education (master's degree or higher, 21.74%), employment status (currently working, 51.96%), income (over EUR 4000 a month, 16.62%), being in an official relationship (59.45%), having children (60.46%), and having a significant other (family member or a friend) who has experienced gambling problems (21.18%). The set of personality traits serving as control variables consisted of impulsivity ( $M = 16.47$ ,  $SD = 5.78$ ) (Eysenck Impulsivity Scale; Dussault et al., 2011), openness ( $M = 13.84$ ,  $SD = 3.53$ ), extroversion ( $M = 13.30$ ,  $SD = 4.29$ ), and neuroticism ( $M = 11.81$ ,  $SD = 4.03$ ) (the Big Five Inventory; Hahn et al., 2012).

## Statistical Techniques

The analyses were conducted with Stata 17.0 software (StataCorp LLC, College Station, TX, USA). Table 1 shows the descriptive statistics of the study variables. The means and standard deviations of escapism, excessive gambling, and excessive gaming are presented across five time points, T1–T5. Autonomy frustration, competence frustration, and relatedness frustration were recorded only at T1. Zero-order correlations of all variables at T1 are listed.

Table 2 presents the associations between basic psychological need frustration variables and escapism as well as the role of sociodemographic variables and personality traits in predicting escapism. Because the focus here was on the general risk for escapism, we used the population-averaged negative binomial model to address the average effects while accounting for repeated measures and within-subject correlations. Negative binomial estimation was used because the outcome measures were highly skewed.

Table 3 summarizes the final random-effects negative binomial regression models showing the longitudinal effects of escapism on excessive gambling and excessive gaming. Escapism, excessive gambling, and excessive gaming are measured at all five time points. The autonomy and competence frustration variables are measured only at T1, and their interaction terms with escapism show between-person effects on both dependent variables.

## Results

The descriptive statistics in Table 1 show the means, standard deviations, reliabilities, and zero-order correlations of the main study variables measured at T1. All the main study variables were positively correlated. The strongest correlations were reported between escapism and excessive gaming (0.77) and between autonomy frustration and competence frustration (0.71) (see Table 1).

**Table 1** Descriptive statistics of the main study variables

Variables	Range	T1, M (SD)	T2, M (SD)	T3, M (SD)	T4, M (SD)	T5, M (SD)	zero order correlations at T1					
							1	2	3	4	5	
1. Escapism	0–12	0.89 (1.82)	0.82 (1.74)	0.86 (1.85)	0.79 (1.68)	0.77 (1.74)	1,00					
2. Excessive gambling	0–27	1.19 (3.12)	1.12 (2.98)	1.18 (3.18)	1.05 (2.94)	1.00 (2.84)	0,47	1,00				
3. Excessive gaming	0–20	1.22 (2.49)	1.24 (2.52)	1.17 (2.36)	1.14 (2.38)	1.06 (2.32)	0,77	0,54	1,00			
4. Frustration: autonomy	4–28	12.79 (5.35)					0,38	0,18	0,30	1,00		
5. Frustration: competence	4–28	11.19 (5.67)					0,45	0,22	0,35	0,71	1,00	
6. Frustration: relatedness	4–27	8.91 (4.64)					0,31	0,25	0,28	0,56	0,61	1,00

*Note.* All figures for those participants who took part in T3 (n = 1095). All correlations are statistically significant ( $p < .001$ )



**Table 2** Population-averaged negative binomial model predicting escapism

	<i>B</i>	<i>SE (B)</i>	95 %	<i>CI</i>	<i>Z</i>	<i>p</i>
Basic Psychological Needs						
Frustration: autonomy	0,26	0,06	0,15	0,37	4,63	<0,001
Frustration: competence	0,29	0,06	0,18	0,41	4,95	<0,001
Frustration: relatedness	0,03	0,04	-0,05	0,12	0,78	0,436
Sociodemographic variables						
Male	0,15	0,04	0,07	0,24	3,60	<0,001
Age	-0,50	0,05	-0,60	-0,40	-9,87	<0,001
Master's degree or higher	-0,10	0,04	-0,19	-0,02	-2,44	0,015
Working	0,02	0,03	-0,05	0,08	0,51	0,608
High income	-0,01	0,05	-0,10	0,08	-0,24	0,812
In official relationship	-0,10	0,04	-0,18	-0,02	-2,39	0,017
Children	0,07	0,05	-0,02	0,16	1,43	0,152
Problem gambling of sig. other	0,17	0,04	0,09	0,24	4,43	<0,001
Personality						
Impulsivity	0,14	0,04	0,06	0,23	3,31	0,001
Openness	0,13	0,04	0,05	0,21	3,14	0,002
Extroversion	-0,11	0,05	-0,20	-0,01	-2,26	0,024
Neuroticism	0,08	0,05	-0,02	0,18	1,60	0,110

*Note.* All independent measures are standardized in the model. The model includes in total 5,027 observations from 1095 participants

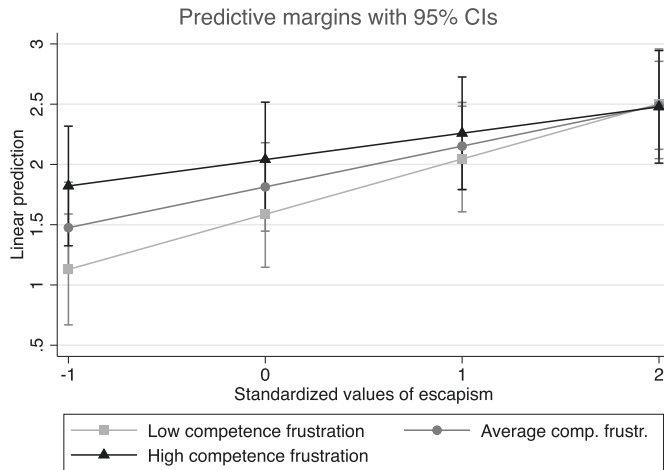
Table 2 presents the results of the population-averaged negative binomial model, showing that autonomy frustration,  $B = 0.26$ ,  $p < 0.001$ , and competence frustration,  $B = 0.29$ ,  $p < 0.001$ , independently predict escapism. The association between relatedness frustration and escapism was not statistically significant. In the sociodemographic-variable group, the model indicated escapism is predicted by male gender,  $B = 0.15$ ,  $p < 0.001$ , and having a significant other who has experienced gambling problems,  $B = 0.17$ ,  $p < 0.001$ . Older age,  $B = -0.50$ ,  $p < 0.001$ , higher education level,  $B = -0.10$ ,  $p = 0.015$ , and being in an official relationship,  $B = -0.10$ ,  $p = 0.017$ , were associated with lower levels of escapism. Looking at the personality traits and their connection to escapism, impulsivity,  $B = 0.14$ ,  $p = 0.001$ , and openness,  $B = 0.13$ ,  $p = 0.002$ , predicted higher levels of escapism whereas extroversion,  $B = -0.11$ ,  $p = 0.024$ , was linked with less escapism. The relation between neuroticism and escapism was not statistically significant.

Our final analysis in Table 3 shows the risk factors for excessive gambling and excessive gaming. The random-effects negative binomial models show that excessive gambling is predicted by escapism,  $B = 0.34$ ,  $p < 0.001$ , and the interaction between competence frustration and escapism,  $B = -0.10$ ,  $p < 0.001$ . This interaction effect is depicted in Figure 1, showing a linear increase in predicted excessive gambling in relation to higher levels of competence frustration and escapism. Even though the random-effects model does not differentiate between within-person and between-person effects, escapism has a significant within-person effect on excessive gambling, which we verified by running a fixed-effects model. In addition, male gender,  $B = 0.28$ ,  $p < 0.001$ , having a significant other who has experienced gambling problems,  $B = 0.38$ ,  $p < 0.001$ , impulsivity,  $B = 0.34$ ,  $p < 0.001$ , and extroversion,  $B = 0.17$ ,  $p = 0.048$ , were associated with an increased risk of excessive gambling. Higher education,  $B = -0.28$ ,  $p < 0.001$ , predicted a lower risk of excessive

**Table 3** Random-effects negative binomial regression models showing risk factors for excessive gambling and gaming

Independent variables	Excessive gambling						Excessive gaming					
	B	SE (B)	95 % CI	Z	P		B	SE (B)	95 % CI	Z	P	
Escapism	0,34	0,03	0,29	13,34	<0,001		0,52	0,02	0,47	22,01	<0,001	
Frustration: autonomy	0,17	0,11	-0,05	1,54	0,124		0,22	0,07	0,08	3,13	0,002	
Frustration: competence	0,19	0,12	-0,04	1,61	0,107		0,07	0,07	-0,08	0,94	0,349	
Frust. autonomy x escapism	0,04	0,03	-0,02	1,37	0,170		-0,06	0,02	-0,11	-2,31	0,021	
Frust. competence x escapism	-0,10	0,03	-0,15	-3,68	<0,001		-0,05	0,02	-0,09	-2,04	0,041	
Controls												
Male	0,28	0,08	0,13	3,70	<0,001		0,15	0,05	0,06	3,10	0,002	
Age	-0,03	0,09	-0,21	-0,37	0,708		-0,47	0,06	-0,58	-7,94	<0,001	
Master's degree or higher	-0,28	0,08	-0,43	-3,67	<0,001		-0,04	0,05	-0,14	-0,87	0,385	
Working	0,04	0,04	-0,03	1,10	0,273		0,03	0,03	-0,03	0,84	0,400	
High income	-0,01	0,08	-0,16	-0,16	0,872		-0,04	0,05	-0,14	-0,72	0,471	
In official relationship	-0,08	0,08	-0,23	-1,00	0,317		-0,04	0,05	-0,14	-0,85	0,398	
Children	-0,05	0,09	-0,22	-0,58	0,561		0,06	0,06	-0,05	1,11	0,268	
Problem gambling of sig. other	0,38	0,07	0,23	5,12	<0,001		0,16	0,05	0,07	3,46	0,001	
Impulsivity	0,34	0,08	0,18	4,17	<0,001		0,18	0,05	0,08	3,50	<0,001	
Openness	-0,05	0,07	-0,19	-0,62	0,532		0,12	0,05	0,02	2,42	0,015	
Extroversion	0,17	0,08	0,00	1,98	0,048		-0,15	0,06	-0,26	-2,74	0,006	
Neuroticism	0,08	0,10	-0,11	0,82	0,413		-0,06	0,06	-0,17	-0,95	0,341	

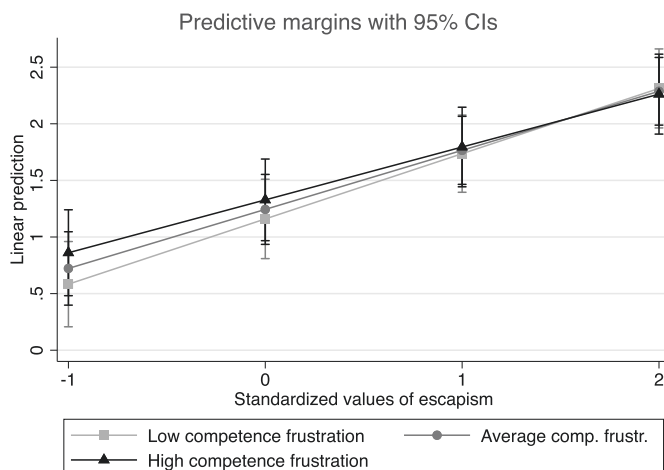
Note. All independent measures are standardized in models. Both models include in total 5,027 observations from 1,095 participants.



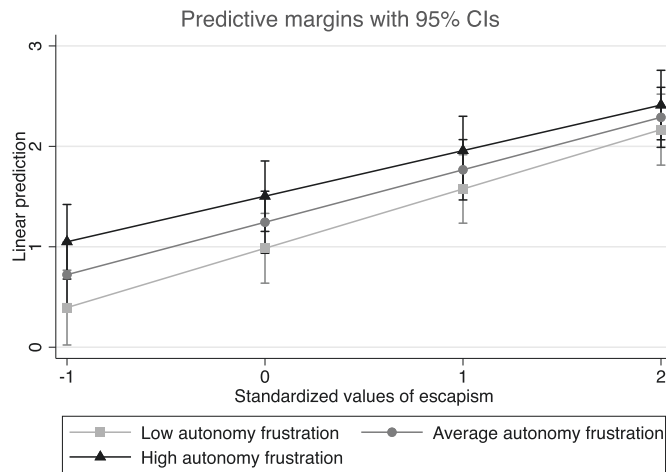
**Fig. 1** Interaction between competence frustration and escapism on excessive gambling

gambling. The model does not include relatedness frustration because it did not reach statistical significance.

In the assessment of risk factors for excessive gaming, our random-effects model showed that escapism,  $B = 0.52, p < 0.001$ , autonomy frustration,  $B = 0.22, p = 0.002$ , the interaction between autonomy frustration and escapism,  $B = -0.06, p = 0.021$ , and the interaction between competence frustration and escapism,  $B = -0.05, p = 0.041$ , were associated with more excessive gaming (Table 3). Again, we used a fixed-effects model to verify that escapism had a significant within-person effect on excessive gaming. Figure 2 describes how changes in competence frustration together with escapism relate to excessive gaming, and Figure 3 shows how different levels of autonomy frustration combined with escapism predict excessive gaming. Among the sociodemographic control variables, male gender,  $B = 0.15, p = 0.002$ , and having a significant other who has experienced gambling problems,  $B = 0.16, p = 0.001$ , predict a higher risk of excessive gaming whereas higher age,  $B = -0.47, p < 0.001$ , emerged as a protective factor. Personality traits indicating a higher risk



**Fig. 2** Interaction between competence frustration and escapism on excessive gaming



**Fig. 3** Interaction between autonomy frustration and escapism on excessive gaming

of excessive gaming included impulsivity,  $B = 0.18$ ,  $p < 0.001$ , and openness,  $B = 0.12$ ,  $p = 0.015$ . Extroversion,  $B = -0.15$ ,  $p = 0.006$ , was associated with a lower risk of excessive gaming.

## Discussion

In this study, we investigated the shared characteristics of individuals involved in escapism and assessed whether an interaction between escapism and the frustration of basic psychological needs for autonomy, relatedness, and competence predicted long-term patterns of excessive gambling and gaming. Our findings show that frustration of basic psychological needs for autonomy and competence predicts escapism. The results also show that competence frustration moderated the relationship between escapism and excessive gambling and gaming. Moreover, autonomy frustration moderated the relationship between escapism and excessive gaming.

Our results are consistent with the founding principles of SDT in highlighting the significance of basic-need satisfaction in sustainable well-being (Ryan & Deci, 2000, 2017). Conversely, thwarting these basic needs is expected to make people more miserable and prone to defensive coping strategies and self-handicapping. Regarding excessive gambling and gaming, only autonomy- and competence-related frustrations were significant predictors, which have also been linked with game escapism and continued gaming (Liao et al, 2022). It is interesting that the frustration of relatedness has no significant effect here. Perhaps the issues of belonging and relationships do not influence gambling and gaming behaviors or the willingness to escape as much as the issues in autonomy and competence do. After all, digital and gambling games provide challenges and freedom that are intended to involve individuals, and they can be immersive experiences even when there is no frustration in one's relationships.

The results also suggest that people with impulsive tendencies and an open-minded personality are more susceptible to escapism. In contrast, extroversion seems to protect an individual from engaging in escapist behavior among our study participants, who represented the adult population in Finland. In this respect, our findings partly support and

partly contradict previous research. For example, the Korean student population reported a positive association between extroversion and escapism (Park et al., 2011), a notable difference compared to our results, which may have arisen due to cultural and age-related factors. In a previous study involving a German population (de Hesselle et al., 2021), extroversion was negatively correlated with escapism, suggesting a closer alignment with our findings. However, there, open-mindedness and escapism produced opposite results compared to our research. Considering the relatively permanent nature of the key personality traits (Terracciano et al., 2006; Roberts & DelVecchio, 2000), we believe that inconsistencies in the results across studies on escapism and personality underscore the importance of and need for standardized scales and established definitions in the study of escapism.

Taking into account the robustness of our models and representative dataset, we may with a certain confidence argue that escapist are impulsive and open-minded toward new experiences but less extroverted. Sensing a loss or serious limitations of autonomy, escapist tend to feel their current life circumstances restrict their room to maneuver. They may also recognize they possess inadequate skills for the tasks at hand, thus placing their self-worth at risk. In this respect, the present study gives new, important insight into the drivers of escapist motivation, partly answering the question “Who are escapist?”

In conclusion, a key contribution of our study is to present evidence on the development of addictive behaviors as a process where psychological needs, personality traits and environmental factors play intertwining roles. While recognizing the value of neuroscience and brain imaging for the study of addictions, our results remind that the mechanisms of addictive behaviors are closely linked to life situations, individual perceptions of the world, and relatively enduring personality traits. How our findings translate into brain functions and secretion of neurotransmitters is another matter, but they should help people and communities develop better strategies to lead more rewarding and healthier lives.

Most particularly, the present study reaffirms the status of escapism as a “transit area” towards addiction. Our results provide further justification for treating escapism primarily as a negative mental concept in connection with excessive behaviors (see Hagström & Kaldo, 2014). This is also consistent with past research embracing the two-dimensional model of escapism, in which the self-suppression type of escapism has been more strongly associated with exercise dependence than the self-expansion type of escapism (Stenseng et al. 2023). However, when explaining motives for excessive behaviors, we think neither the two-dimensional model of escapism nor the dual approach of promotion and prevention focus according to RFT reach the core of escapism in an ideal way. Even self-enhancing behavior based on promotion-focus may in the long run invoke symptoms of obsession or addiction (Partington et al., 2009), potentially leading to anxiety when a person is deprived of the addictive activity (Smith et al., 2009). Moreover, seemingly useful behaviors, such as exercising, can be used as an escape from the burden of excessive self-awareness (Baumeister, 1991). Therefore, it is essential to concentrate on the root causes of escapism instead of how a particular activity looks or feels. In other words, escapism is neither energy giving nor pleasant, even if the sensations pleasure-seeking activities produce might be. This is why escapism in connection with excessive behaviors should be understood as an adverse psychological phenomenon.

A key strength of our study is the longitudinal and nationally representative dataset, which allows for examination of escapism’s sustained effects. Another important contribution of this paper is the novel analysis of the interaction between escapism and frustration of basic psychological needs. A principal limitation of the study is its geographic scope because the survey was limited to Finnish participants. However, considering the

consistency of the basic psychological needs across cultures, it is fair to assume our results are applicable to a broader setting. An additional challenge in the study of escapism is the variability in how it is measured in different research contexts and purposes. While we utilized the MTPI-R, as a comparison, in the 27-item Motives for Online Gaming Questionnaire (MOGQ, Demetrovics et al., 2011), the original escapism–coping dimension is divided into an escapism factor and a coping factor with four questions each. Additionally, the MOGQ includes a fantasy factor that partially overlaps with escapism. Both the Gambling Motives Questionnaire (GMQ, Stewart & Zack, 2008) and The Electronic Gaming Motives Questionnaire (EGMQ, Myrseth et al., 2017) include subscales for coping but not for escapism. The MTPI-R was suitable here as it essentially measures avoidance behavior whereby an adverse consequence is removed when a person resorts to escapism, and the behavior is further reinforced through a learning process. (Hagström and Kaldo, 2014; Aberg et al., 2016). Taking into account that habit learning is enhanced in behavioral addictions (Ngetich et al., 2024), measuring escapism with the MTPI-R was a meaningful choice when analyzing its association with excessive gambling and gaming.

Taking note of the study's limitations and considering the need for effective identification and prevention of gambling and gaming problems, we suggest a number of topics for future research. Firstly, considering the debate around the concept of escapism, future research should further refine and specify the concept of negative, avoidant type of escapism as a driver for addictive behaviors. Secondly, although the longitudinal setting in our analysis provides an unequivocal view on the role of personality traits in predicting escapism, previous research findings on that relationship are ambiguous. We believe future research would benefit from validating the associations between personality traits and escapism. Thirdly, involving samples from several countries in the research population would help generalize the findings. Finally, developing employee wellbeing calls for up-to-date solutions applied to competitive and result-oriented contexts. Conducting studies on escapism and addictive behaviors in workplaces could help business organizations create practical ways for securing autonomy, support sense of competence, and build workplace communities that prevent mental and addictive disorders.

**Authors' contributions** Conceptualization: Hannu Jouhki, Atte Oksanen Data curation: Atte Oksanen, Iina Savolainen, Heli Hagfors, Ilkka Vuorinen Formal analysis: Atte Oksanen, Hannu Jouhki Funding acquisition: Atte Oksanen, Iina Savolainen Investigation: Atte Oksanen, Iina Savolainen Methodology: Atte Oksanen Project administration: Hannu Jouhki, Atte Oksanen Supervision: Atte Oksanen Validation: Atte Oksanen Visualization: Atte Oksanen Writing—original draft: Hannu Jouhki, Iina Savolainen, Heli Hagfors, Ilkka Vuorinen, Atte Oksanen Writing—review and editing: Hannu Jouhki, Iina Savolainen, Heli Hagfors, Ilkka Vuorinen, Atte Oksanen

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**Data Availability** The data that support the findings of this study are available from the corresponding author, [Hannu Jouhki], upon reasonable request.

## Declarations

**Ethics Approval** This study was performed in line with the principles of the Declaration of Helsinki. The Ethics Committee of Tampere Region in Finland approved the study in March 2021. No animal or human studies were carried out by the authors for this article.

**Competing interests** The authors have no competing interests to disclose.

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