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Original Article

Substance use and meaning: transforming occupational participation and experience

Uso de substâncias e significados: transformando participação ocupacional e experiências

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Abstract

Introduction: We draw on activity theory of concepts to examine 'meaning of occupation' and 'substance use' beyond preconceived notions of inherent positive or negative experiences. **Objective:** To explore nuanced meanings of substance use and associated occupations. **Method:** An online survey and semi-structured interviews were used to collect data from professionals about prevalence of substance use, substance effects, and personal experiences. In analyzing the interview data, we attended to substance use as a discrete occupation in itself, substance use co-occurring with other occupations, and substance use altering the performance, participation, and experience of occupations. **Results:** Three broad themes related to meaning: i) complex meanings attributed to substance use, ii) meanings of substance use as shifting and variable, and iii) meanings of substance use in the context of other occupations. Substance use enhances occupations, transforms meaning of occupations, and mitigates less desired aspects of occupations. Work, construed as positively meaningful and valued in occupational therapy literature, was a source of stress, unhappiness, and worry; substance use facilitated relaxation and pleasure. **Conclusion:** This study furthers occupational therapy knowledge with respect to implications for conceptualization that extend beyond dualist framings and implications for occupational therapy education, practice, and policy.

Keywords: Substance Use, Work, Performance-Enhancing Substances, Occupational Therapy.

Resumo

Introdução: Foi utilizada a teoria da atividade de conceitos para examinar o "significado da ocupação" e o "uso de substâncias" para além das noções preconcebidas de experiências inerentes positivas ou negativas. **Objetivo:** Explorar nuances do significado do uso de substâncias e as ocupações associadas.

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Método: Uma pesquisa *online* e entrevistas semiestruturadas foram usadas para coletar dados de profissionais sobre a prevalência do uso de substâncias, efeitos de substâncias e experiências pessoais. Ao analisar os dados da entrevista, observamos que o uso de substâncias é uma ocupação discreta em si, ocorrendo com outras ocupações e o uso de substâncias altera o desempenho, a participação e a experiência das ocupações. **Resultados:** Três grandes temas relacionados ao significado: i) significados complexos atribuídos ao uso de substâncias, ii) significados do uso de substâncias como mutante e variável, e iii) significados do uso de substâncias no contexto de outras ocupações. O uso de substâncias enlaça-se às ocupações, transforma os seus significados e mitiga aspectos menos desejados das ocupações. O trabalho, considerado positivamente significativo e valorizado na literatura da terapia ocupacional, era uma fonte de estresse, infelicidade e preocupação; o uso de substâncias facilitou o relaxamento e o prazer. **Conclusão:** Este estudo aprofunda o conhecimento da terapia ocupacional com implicações para ampliar a conceptualização para além da fragmentação dualista e oferta implicações para a formação em terapia ocupacional, para a prática e a política.

Palavras-chave: Uso de Substâncias, Trabalho, Substâncias para Melhoria do Desempenho, Terapia Ocupacional.

Introduction

In occupational therapy, 'meaning' is framed almost exclusively in relation to presumptions of positive experiences and outcomes (i.e., "mastery, self-worth, quality of life, sense of purpose, fulfilment, happiness, mental health, physical health, and well-being") (Kiepek et al., unpublished data). Rarely does occupational therapy scholarship explicitly attend to potential meanings that are not considered positive, leaving important aspects of meaning under-examined (Hammell, 2004; Keponen & Kielhofner, 2006; Kiepek et al., 2014; Nelson et al., 1982; Twinley, 2013). In this paper, we explore complex, nuanced meanings of substance use as an occupation (see Kiepek & Magalhães, 2011) that co-occurs with other occupations. Substances are also known as 'drugs' and encompass licit substances (e.g., alcohol, tobacco, caffeine), pharmaceuticals (e.g., prescription medication, over-the-counter formulations), and illicit substances [e.g., cocaine, 3,4-Methylenedioxy methamphetamine (MDMA)] (Katzung et al., 2019). Substances influence biochemical and physiological processes through actions with receptors located in the body (Katzung et al., 2019).

Although largely implicit, assumptions about meaning of occupations—in this case the over-emphasis on positive connotations—shape approaches to research and practice. Until recently, occupational therapy implicitly silenced examination of occupations that were not socially sanctioned according to Global North worldviews (Kiepek et al., 2014; Twinley, 2013), relegating to the margins those occupations deemed unhealthy, anti-social, immoral, disruptive, deviant, or resistant. In fields outside occupational therapy, 'meanings' of occupation appear less bound by preoccupation with positive connotations. For instance, teaching and learning can mean boredom (Tam et al., 2020; van Hooff & van Hooft, 2014), caregiving can mean high levels of stress (Cohen et al., 2015), and children's sports may be associated with injury (Hiasat & Nischal, 2020)

and social exclusion (Vandermeerschen et al., 2015). Meaning of any occupation is simultaneously individual and social, shaped by context and history as well as by available concepts.

Whereas occupational therapy literature has displayed a myopic attention to meanings deemed positive, literature in the area of substance use has been similarly narrow in focus, though in reverse, endorsing almost exclusively problematized, harms-focused, *negative* meanings (Hart, 2021; Kiepek et al., 2019a; Race, 2017). Explorations and interpretations that do not conform to this negative construction are largely silenced (Walker, 2021). Despite this hegemonic approach to understanding substance use, it too is an occupation with multiple, nuanced, complex and even contradictory meanings. Psychoactive substances – whether legal or illegal, prescribed or widely available – may be used as part of spiritual ceremony and ritual (Boiteux et al., 2014; Labate, 2014) or to enhance mood, cognition, occupations (Kiepek et al., 2019b). Such substances may be used to alter the experience of other occupations, such as taking psychedelics to increase the pleasure of listening to music, or using cannabis to make housework more enjoyable. Substance use may indirectly affect occupations. For instance, among sports groups, alcohol use is reported to have meanings related to strengthened social cohesion and informally regulated so as to not negatively impact competitive performance (Zhou & Heim, 2016). Medically sanctioned pharmaceuticals, in contrast, are a type of substance predominantly affiliated with positive meanings.

Meanings related to enhancing experiences are complexly situated in social perceptions of equality, fairness, authenticity, autonomy, and what it means to be human. In particular contexts, substance use may even be a component of conformity to social norms and moral standards valuing enhanced productivity and economic participation (Sy et al., 2019). For example, substances may help regulate sleep/wake cycles for shift workers, or caffeine may be an expected part of professional work cultures. Non-medical uses of prescription stimulants may be a routine way to mitigate "study-related stress" (Dunn & Forlini, 2020, p. 164). Knowing these meanings of substance use helps direct attention to the work conditions or productivity expectations that lead to substance use as a "[...] choice within constraint" (De Coster & Heimer, 2017, p. 11).

When research operationalizes over-simplified positive or negative framings of meaning, researchers may inadvertently neglect broader data collection. For instance, research about substance use tends to inquire about negative consequences with the goal of mitigating harm, whereas research about occupation leans toward positive meanings, promoting participation in occupations for therapeutic outcomes. The current study explores meanings of substance use among professionals, not presuming meanings of occupation are exclusively positive, nor assuming substance use is necessarily negative.

Concepts – such as 'meaning,' 'occupation,' and 'substance use' – are defined primarily through socially dominant perspectives and, thus, are always historically and culturally relative (Hjørland, 2009). From Hjørland's (2009, p. 1522-1523) action theory of concepts, concepts are never neutral, but they are inherently value-laden, and contextually situated.

> Concepts are dynamically constructed and collectively negotiated meanings that classify the world according to interests and theories. Concepts and their

> development cannot be understood in isolation from the interests and theories that motivated their construction, and, in general, we should expect competing conceptions and concepts to be at play in all domains at all times.

Though concepts are stabilized through practices (Engestrom, 2000; Hjørland, 2009; Wilson, 2008), alternative concepts continually circulate. Therefore, "[...] it is important to uncover the inherent values and consequences in any knowledge claim, in any conception, and in any classification" (Hjørland, 2009, p. 1526).

Elsewhere we propose alternative ways of conceptualizing 'meaning of occupation' (Kiepek et al., unpublished data) and 'substance use' (Kiepek et al., 2019b), but here we take up the challenge of the activity theory of concepts: to uncover values that inform dominant concepts. We have drawn on Engestrom's work on activity theory. Leontiev (Leontyev) proposed activity theory as founded on the notions of 1) "[...] the social nature of human mind," and 2) "[...] unity and inseparability of human mind and activity" (Clemmensen et al., 2016, p. 609). Leontiev viewed 'activity' as "[...] purposeful, social, mediated, multilevel, and developing interaction between actors ('subjects') and the objective world ('objects')" (Clemmensen et al., 2016, p. 609). Engestrom expanded on this by adding community as a third element (Clemmensen et al., 2016).

Our study was designed to collect data about the prevalence of substance use, self-reported effects, and perspectives on professional regulation. This study was launched in Canada in October 2018, coinciding with the legalization of cannabis. Decriminalization of drugs is gaining traction in Canada, including by the Canadian Association of Chiefs of Police (Cooke, 2020) and the Canadian Public Health Medical Officer (Mangat, 2020). In November 2021, the province of British Columbia officially requested federal exemption from criminal penalties for possession of small amounts of illicit drugs for personal use (Aziz, 2021). The median annual income in Canada in 2019 was CND$37,800 (Canada, 2021). In 2016, the average income for a person with university certificate or degree at bachelor level or above, which would be true for Canadian professional, was CND$69,418 (Canada, 2019). This information is important to frame the political, social, historical, and economic context in which the participants are situated.

We align our work with the position that "[...] concepts and percepts cannot form a perfect model of the world — they are abstractions that select features that are important for one purpose, but they ignore details and complexities that may be just as important for some other purpose" (Sowa, 1984, as cited in Hjørland, 2009, p. 1526). Our goal is to add detail by suspending dominant assumptions about substance use and meaning of occupation as inherently negative or positive, increasing the complexity of conceptual understanding.

Objective

The intent of this paper is to unearth meanings attributed to substance use and associated occupations by Canadian professionals engaged in those occupations. We draw on a hermeneutical approach to examine complex meanings within and beyond individual subjectivity and situate our interpretations contextually. It is not our aim to

dichotomize 'meanings' as either positive or negative, nor to situate particular occupations, meanings, or contexts as more or less favourable. Echoing Polanyi & Prosch (1975, p. 182), we aim, rather, to:

> [...] be brave enough to hold fast to all meanings we have been able to achieve, regarding them as the most precious things we possess. But whether or not we think such meanings are part of what the whole universe is about, we will no doubt, if we truly value them, wish to live in a society in which their attainment is honoured and respected. We will not want to see any of these meanings demeaned….a free society is regarded as one that does *not* engage, on principle, in attempting to control what people find meaningful [...].

Methods

This study employed a mixed-methods sequential design (Ivankova et al., 2006), with a survey followed by in-depth interviews for greater exploration of substance use meanings. The survey was descriptive rather than hypothesis-testing, designed to examine prevalence of substance use among professionals, and self-reported effects. The qualitative interviews were grounded in thematic analysis, "[...] a method that works both to reflect reality and to unpick or unravel the surface of 'reality'" (Braun & Clarke, 2006, p. 81). Each source of data was analyzed separately and was not contingent on information collected using the other method.

Participants

Participants were residing in Canada, 19-years or older, and considered a professional. While the concept 'professional' lacks "definitional precision" (Evetts, 2013, p. 780), we aligned our definition with Western nation states where professionals are typically members of a profession-specific society, association, college, and/or regulatory body; subject to a code of professional ethics or code of conduct; and/or subject to professional licensure or accreditation (Evetts, 2013). Professions identified for recruitment included lawyers, engineers, accountants, nursing, teachers, architects, physiotherapists, speech-language pathologists, audiologists, pilots, paramedics, physicians, chiropractors, optometrists, veterinarians, journalists, occupational therapists, and social workers.

To be eligible for the *survey*, respondents may or may not have ever used substances as it is equally important to learn about the factors related to not using. To be eligible for the *interview* portions of the study, respondents were those who engaged in substance use in one of the following ways: i) approximately daily use of a non-prescribed psychoactive substance (excluding caffeine only); ii) non-prescribed used of one or more substances on approximately a weekly basis, or iii) infrequent (less than weekly) but heavy use (e.g., 'binge' use).

Recruitment process

Recruitment involved print and virtual advertising. Postcard advertisements were distributed to local areas in Halifax, Nova Scotia, such as workplaces, across the

university campus where professionals are known to frequent, and in other places across Canada (e.g., conferences) when the research team travelled. Virtual advertising included select national and provincial professional associations and societies, university alumni channels, a project website, social media (e.g., Facebook, Twitter, Instagram), and newspaper advertisements (print and online). Advertisements provided a link to the project website, and where possible, a copy of the recruitment letter and consent form were included in emails to prospective interviewees. Snowball recruitment through informant contacts and research participants was also used. Interviewees were remunerated $25 per interview.

Data collection

The sequential mixed methods approach involved an online survey and semi-structured interviews. An anonymous, online *survey* collected the following data: demographics [province of residence; years of work experience; work-related information (e.g., specialization, work hours)]; prevalence of substance use [never used; used in past-30-days; used in past-year; used ever (but not past-30-days or past-year)]; and immediate and delayed effects of substances used (65 effects listed, plus option to report other effects). In the pilot study, we asked about effects of *all* substances a person had ever used and experienced high drop-out rates, so modified the survey to request effects for at least three substances, which resolved challenges around retention. Substances included were generated from the literature, with an aim to provide a wide range of options (from those typically considered completely innocuous, such as caffeine, to those considered highly illicit, such as hallucinogens) to reduce the survey effects of social desirability.

Respondents were invited to participate in subsequent *interviews*, focused on personal use of substances and effects, perspectives on professional regulation of private substance use, and experiences around disclosure. Consistent with our past studies (Kiepek & Beagan, 2018; Kiepek et al., 2018), open-ended interviews were conducted and interviewer responses had a reflective nature to encourage interviewees to direct the focus of discussion topics (e.g., paraphrase or summarize interviewees' statements without any interpretation; respond with "mhm" or "hm" to encourage elaboration). Research assistants transcribed interviews using ExpressScribe software. Online software was used to randomly generate two-letter identifiers for interviewees for dissemination purposes.

Analysis

In this paper, the survey data is analyzed separate from interview data to share information about the demographics about the larger pool of participants from which the interviewees were recruited. It was not our intended goal to explore the concept of 'meaning' related to substance use or associated occupations, but this emerged as an importance theme during the analysis process.

Data analysis commenced following the collection of all data. For this paper, select survey data are presented to contextualize the analysis of meaning, with a more comprehensive overview submitted separately for publication. Analysis of survey data provides a summary of demographics and prevalence of substance use among

respondents. This is not a representative sample of professionals nationally; however, a diverse range of professionals and types of substance use are illustrated.

Thematic analysis (Braun & Clarke, 2006) was undertaken by the first and second authors. Initially, the second author deductively coded a selection of 11 interviews using Atlas.ti software, to test a deductive analysis process using *a priori* codes based on the survey items and interview questions (e.g., types of substances, effects). The preliminary coding was reviewed and revised by the first author, who integrated deductive and inductive approaches. Certain themes were identified deductively in advance (i.e., perspectives on professional regulation; meaning of substance use in relation to other occupations; experiences of disclosure; types of effects), whereas others emerged inductively (i.e., gender differences, alternatives to substance use) to guide development of novel codes. The first author coded all interviews followed by interpretive analysis conducted in collaboration with the second author, who had in-depth knowledge of the interviews through her roles in facilitating interviews and transcribing. At the stage of data collection, thematic saturation was considered to be achieved in relation to specific interview topics (Morse, 1995; Saunders et al., 2018): reported effects of substances, factors influencing substance use, and perspectives on professional regulation. These findings are reported separately. During data analysis for this paper, thematic saturation was deemed to have been met for meanings associated with professionals' use of caffeine, alcohol, and cannabis, though possibly not for illicit substances, which were less frequently discussed, with widely divergent experiences.

Results

Survey

Survey respondents (n=516) were included if they completed the demographics and prevalence sections of the survey. Survey respondents were predominantly health professionals (77.7%), women (71.6%), and 25 to 39 years old (61.2%).

Prevalence of substance use is reported in Table 1. Two survey respondents (0.4%) reported no use of substances ever, 5 (1%) reported no use in the past-year, and 13 (2.5%) reported no use in the past 30-days. The most commonly used substances in the past 30 days and past year were caffeine, alcohol, and pain suppressants, followed by cannabis and antihistamines.

Immediate effects reported in the survey (n=516) were predominantly those typically considered positive, regardless of the type of substance. Commonly reported effects include alert/awake, anxiety/stress reduced, boredom reduced, calm/chill/relaxed, clarity improved, concentration/focus improved, energy increased, enjoyment/pleasure, motivation increased, pain/discomfort reduced, school or work performance improved, sleep improved, and socializing improved. Among the least commonly reported effects for all substances were: late/tardy, missing school/work obligation, school performance reduced, spiritual engagement enhanced or reduced, work performance reduced, aggressive/irritable/angry, sadness, sexual desire reduced, clumsiness/injury/accident, hangover/comedown/crash, pain/discomfort increased, sexual arousal/experience reduced, and psychosis. The prevalence of these effects are reported elsewhere (Kiepek & Ausman, unpublished data).

Table 1. Prevalence of past substance use (% of survey respondents, total n=516).

	Ever	Past year[1]	Past 30 days
Caffeine	96.7	93.6	91.1
Alcohol	95.9	91.3	81.2
Antihistamine	81.2	52.9	24.4
Pain suppressants	80.6	63.8	47.1
Gravol[2]	73.8	32.2	9.5
Cannabis	70.6	44.8	32.4
Opioids/opiates			
Codeine	64.3	15.1	5.0
Morphine	15.5	2.3	0.6
Oxycodone	15.1	2.3	0.4
Fentanyl	7.0	0.8	0
Hydrocodone	9.1	2.7	0.4
Methadone	1.4	0.4	0
Heroin	1.2	0.2	0.2
Tobacco products	51.2	16.9	10.5
Melatonin	43.2	26.2	13.6
Benzodiazepines	35.5	16.1	7.4
Sleeping medications	33.5	15.1	7.2
Antidepressants	30.8	17.1	15.1
Cannabidiol (CBD)	27.9	26.0	19.4
Psilocybin ("magic mushrooms")	26.9	6.6	1.7
Cocaine	19.8	7.0	2.3
Ecstasy	17.1	1.9	0.8
3,4-Methylenedioxy methamphetamine (MDMA)	17.1	4.5	1.4
Erectile medication[3]	14.5	8.3	4.8
Lysergic acid diethylamide (LSD)	12.6	2.3	0.4
Adderall[4]	11.0	3.3	0.8
Ritalin[5]	9.3	1.7	1.2
Amphetamines	9.1	2.5	0.8
Nicotine replacement therapy	9.0	4.3	2.9
Methamphetamine	5.0	1.0	0.4
Ketamine	4.7	1.2	0
Alkyl nitrite	4.5	1.4	0.6
Gamma Hydroxybutyrate (GHB)	3.7	0.8	0.2
Solvents	3.3	1.9	1.4
Mescaline	2.9	-	-
Barbiturates	2.5	0.2	-
Anabolic steroids	1.9	-	-
Peyote	0.8	-	-
Suboxone/Subutex	0.6	-	-
Khat	0.6	-	-
Ayahuasca	0.6	-	-
Buprenorphine	0.2	-	-

[1]Includes past 30-days. [2]A brand name for dimenhydrinate, an anti-nausea medication with sedating properties. [3]Men only (n=145). [4]A brand name for methylphenidate, a medication used to treat attention deficit hyperactivity disorder and narcolepsy. [5]A brand name for dextroamphetamine and amphetamine, a medication used to treat attention deficit hyperactivity disorder and narcolepsy

Interviews

Fifty-three participants engaged in narrative interviews (36 women; 17 men); however, one man was excluded since his education and employment experiences did not align with a professional role. This resulted in a total of 52 interviewees. Six people

were interviewed only once, 47 were interviewed twice. Practice experience ranged from less than 1 to 22 years, with a mean of 7 years. Prevalence of substance use among interviewees is indicated in Table 2.

Table 2. Interviewee current and past use of substances (n=52)

Substance	Current use	Past use[1]
Alcohol	46 (88.5%)	48 (92.3%)
Caffeine	45 (86.5%)	43 (82.7%)
Pain suppressant	40 (76.9%)	42 (80.8%)
Cannabis/CBD	24 (46.2%)	30 (57.7%)
Sleep aid[2]	10 (19.2%)	12 (23.1%)
Antihistamines	7 (13.6%)	9 (17.3%)
Antidepressant	6 (11.5%)	7 (13.6%)
Anxiolytic	5 (9.6%)	7 (13.6%)
Nicotine	5 (9.6%)	7 (13.6%)
Psilocybin	3 (5.8%)	7 (13.6%)
Cocaine	1 (1.9%)	6 (11.5%)
MDMA/ecstasy	1 (1.9%)	10 (19.2%)
Adderall	0	4 (7.7%)
LSD	0	3 (5.8%)
Other[3]	0	1 (1.9%)

[1]Previous use when a professional or when a student in a professional program. [2]Including over-the-counter or prescribed medication and melatonin. [3]Poppers, erectile medication.

In analyzing the interview data, we attended to substance use as a discrete occupation in itself, substance use co-occurring with other occupations, and substance use altering the performance, participation, and experience of occupations. We identified three broad themes related to meaning: i) complex meanings attributed to substance use, ii) meanings of substance use as shifting and variable, and iii) meanings of substance use in the context of other occupations. During our analysis, meanings of substance use appeared to differ across gender for parenting and household management, which we have described from a gendered theoretical perspective elsewhere (Kiepek et al., unpublished data). Here we focus on meanings predominantly related to one's professional roles.

Complex meanings attributed to substance use

Meanings of substance use as an occupation were uncovered, with personal attributions of meaning varying widely and meanings differing according to type of substance. Given the high prevalence of alcohol and caffeine use, it is not surprising these were the most commonly discussed by interviewees, followed by cannabis/CBD. Meanings of substance use were discussed in relation to personal experiences and perspectives and situated in discussion of social norms. For instance, some interviewees reported abstaining from or minimizing alcohol use due to a family history of addictive disorders, while also acknowledging that in a Canadian context abstinence is uncommon and can result in social exclusion. Interviewee VH reflected on the complex meanings of substance use:

> *Maybe it's not [the] direct effect of it, but it's the significance of that activity – that it makes socializing more fun or you feel more included if you engage in a certain*

> *use of a substance because other people are engaging in that use of a substance. Not just when you're a teenager and it's peer pressure, but also that follows you through life, right? Now you wanna fit in, you wanna feel relaxed, you wanna have something to talk about. You start drinking wine or you start drinking beer, you start smoking pot. I'm sure that lots of people have different reasons for using substances … my thought was you use them for the effects but I think maybe there's more to it than that*.

Below we explore patterns of meanings specific to particular substances. In all cases the context of professional expectations influence personal, collective, and social meanings. By examining substances separately, similarities and differences become apparent.

Caffeine

For people who consumed caffeine (typically in the form of coffee or tea), many expressed personal meanings central to their current lives, which they attributed to some extent to the potential effects of increased energy and productivity. For many, however, the meanings went deeper; as Interviewee AW stated, "*coffee is life*." Interviewee LD described a feeling of comfort: "*I love the warmth from it … it's almost like putting on an extra sweater … it's soothing*." Some people spoke of drinking coffee "religiously" (Interviewee OD). Meaning extended beyond consumption, as mentioned by Interviewee TT, "*I like coffee and I like the smell of coffee. I like coffee shops, I like caffeine and the whole idea of the caffeine*."

For many interviewees, caffeine derived its meaning from being part of daily or weekly routines: "*It's like a habit now. Routine, just when I get up in the morning. I make my coffee and sit on the couch and drink it and read the news. And then start the day*" (Interviewee TX). Interviewee XS described having a coffee as, "[...] *the nicest part of my morning. It definitely feels very pure to me*." She described her rituals as more important than having the actual coffee:

> *I go to bed at night and I'm like, boy I can't wait to wake up and get a coffee. So it starts then. And then you go to sleep, you wake up and I'm like yeah, let's get this day started and get in my car, driving* [to the coffee shop]*, the whole routine it's nice… You get your drink, you go to work. I arrive half an hour before everyone else. It's quiet. It's nice. I catch up on my news… that's just the best part of my day… everything is going well, everything's gone to plan*.

Interviewee SU drank coffee on Fridays, as an "indulgence" and "a little celebration at the end of the week."

Meanings can be collective as well as individual, with Interviewee OP explaining she and her husband share "coffee time" together while the children play:

> *They've kind of learned that mummy and daddy's coffee time, that's their time. So they've kind of recognized that as something that mummy and daddy might need to get through the day…. Sunday mornings, they go play. We sit in the living room and have a nice calm quiet coffee*.

Participants also described frequenting artisanal coffee shops with friends as "*like a hobby but not a hobby*" (Interviewee CF) and linked sitting in a café with "*people watching and chilling out*" (Interviewee FM). Many people reported consuming caffeine mainly at work with collective meaning as "*a group activity*" (Interviewee OI). Meanings associated with identity were less commonly discussed in relation to caffeine, though Interviewee JR identified to some extent with the notion of being a "coffee snob."

Alcohol

Alcohol was frequently linked to relaxation. Interviewee OI indicated, "[...] *for me the pouring of the wine and starting to cook dinner is the starting point of the relaxation and the evening, the day is almost done and I can now start relaxing*." This workday transition was echoed by others, "[...] *just shutting off and enjoying the evening*" (Interviewee FM) and "[...] *taking some me time.… almost like it's a reward for surviving the day*" (Interviewee VH). For some, rituals appeared particularly meaningful: "*If I'm stressed out, then the action of pouring something out, into a glass and sipping on it or drinking it, can be soothing… just the act of it*" (Interviewee CV). Several interviewees saw alcohol as a type of leisure activity, sampling alcohol from various regions, pairing it with fine foods.

A predominant theme related to the meaning of alcohol was the embeddedness in normative, collective and social, daily life. Particularly for professional students, "[...] *it was not just acceptable, but kind of expected that everybody would be drinking*" (Interviewee EK). Much socialization involved alcohol, such as dinners, games, dances, parties, sports, and many events and celebrations, including end of exams, vacations, birthdays, weddings and funerals. Interviewee MF expressed:

> *Playing video games or going out to dinner or going like to watch a soccer game … you're just like 'oh, I don't need a drink at these things', but I kind of do because I'm at an event and it's almost like you feel the need to participate in the social aspect of it.*

Several people referred to alcohol as a social lubricant. Some described themselves as being anxious in social settings, with alcohol contributing to lower inhibitions and increased confidence; others found it enhanced their social nature: "*With a few drinks into me I'm pretty much the life of the party*" (Interviewee CS). Use of alcohol among professional students, at house parties or bars, was described as "[...] *the social equalizer that most every student took part in*" (Interviewee AL). Interviewee BX spoke of the relationship between alcohol and social occupations as a type of coupling, making them difficult to "uncouple."

With alcohol use having so many positive and desirable social and cultural meanings, *not drinking* can mean social exclusion and Otherness. Interviewee BX described how being "[...] *bombarded all of the time with images of everyone drinking alcohol*" in peers' social media posts, can serve as a constant reminder of being an outsider for those who abstain. Interviewee OP expressed how deeply entrenched alcohol is as a social norm in Canada: "If I'm going to a party, they'll ask, 'Well why aren't you drinking?' And they're like 'Are you pregnant?' There seems to be a very widespread perception that drinking is the norm and people should be consuming alcohol at these social events. Unless

there's very specific reason not to." Some people used being the designated driver as a legitimate reason not to drink.

Reflecting on the meaning of substances in their lives, several interviewees pondered long term health implications. Interviewee TT reflected on concerns about what would constitute "alcoholism" which seemed to shift the meaning of alcohol consumption: "*Unless I'm damaging my liver here, maybe this is okay. Maybe I shouldn't feel any guilt about this… Am I doing damage to myself? And potentially, on my way to becoming an alcoholic, which isn't gonna be good for anybody?*" Others questioned the perpetuation of a kind of social pressure to drink alcohol: "*Why do I feel I need to have a drink when I'm out with friends?... It's weird as an adult. I'm 28, I shouldn't feel like I have to drink to fit in*." (Interviewee MF)

Cannabis

Like caffeine and alcohol, cannabis was embedded in people's days and weeks, providing meanings associated with routine and ritual. Interviewee XG reported, "Sometimes it's my routine where I get home … it's time you have to sit back and relax and turn on the tv and smoke a joint." As with alcohol, Interviewee EK described use of cannabis as a "clear mark," "dividing line," "switch," and "clear demarcation" between "work and not work," elaborating, "I think it's important for probably most people to have a substance that they associate with relaxation. And I guess that could be something like meditation probably, it's something, some activity that you do that kind of turns your brain off or kind of switches you into a non-work mode."

Some people found cannabis enhanced mood, similar to what one might experience using pharmaceuticals. Others used cannabis periodically to heighten experiences. Interviewee TQ discussed cannabis as a "treat on the weekend," explaining:

> *It's never negatively impacted my professional career. In fact, on the weekend when I do take that time to just really unwind and kind of indulge myself and like, using marijuana and having a couple glasses of wine, it makes me feel refreshed, ready to go. 'Cause I'm like, okay, I got it out of my system, now I'm ready for the week*.

Many experienced increased motivation to engage in tasks. Interviewee XD described using cannabis "after having a long week at work and being 'oh I have to do all this stuff around home,' but maybe I can try to trick myself into feeling it's more fun, or that I am relaxing." Most interviewees described cannabis as less conducive to socializing, as they felt more introverted. Given cannabis was an illegal substance in Canada until recently, interviewees expressed a legacy of stigma and misunderstanding from others. This largely led to distrust around self-disclosure and a perceived need to conceal use of a substance personally viewed as either benign (particularly in contrast to alcohol) or beneficial.

Illicit substances

Use of illicit substances was less commonly reported by interviewees, so meanings varied by interviewee and types of substance. Several interviewees reported non-prescribed, illicit

Adderall use when they were students. The intent was often improved academic performance, but for some the substance also meant a heightened sense of competency:

> *I felt more like myself. I felt like a better version of myself. That's how I felt. And it was a good feeling. I felt smarter. I felt more on point. I felt like I could do the things I needed to do, more effectively. I procrastinated less. I was more efficient. All these things about myself that I like were amplified and I loved that. I loved it… I'm a type A perfectionistic personality*. (Interviewee JV).

Psilocybin ('magic mushrooms') and MDMA ('Ecstasy', 'Molly') were among the most commonly used illicit substances. These were typically considered 'social drugs,' used with a select group of others, and used in the context of events, such as on vacation, at music concerts or festivals, or while at a cottage, beach, or camping. These substances had meanings of openly expressing emotions, connecting with others, fostering empathy, and heightening enjoyment. Interviewee DV explained,

> *Magic mushrooms … they're the best thing that have happened to my life actually. They have opened up my mind to mindfulness … and that's what I've been using get through* [professional] *school and through all the stresses in my life. It has made life much more enjoyable and easier and it has opened up my mind to how connected we could be to nature and the universe … it's very positive for me … And also has given me the ability to be able to understand people more … I'm more able to take other people's perspectives … make peace with situations that could be painful or hard to deal with*.

Just as others experienced a morning coffee as the best part of the day, experiencing more clarity, improved mood and a sense of perfection, DV found such positive meanings in using psilocybin, and JV had similar experiences using Adderall.

In contrast, some experienced using illicit substances as having simultaneous positive and negative meanings. Interviewee AW shared past experiences using cocaine, crystal meth, and amphetamines to an extent that harmed mental health, employability and housing stability.

> *I always had this sense of disempowerment. Never being good enough. Never fitting in. Just not ever in the right place. And the aspects of the amphetamines make you feel powerful … it removed the powerlessness that I had. It allowed me at points in time to engage in places where I just didn't feel I had the power. And then when it came to homelessness, I didn't have to sleep if I didn't have a place. I would stay up for sometimes a week. Ten days … When you add poverty, substance use, leaving home at the age of 15 years old, your powers have been diminished greatly. And you don't fit in society. And there's no space for you. There was always just this struggle. And so crystal meth and cocaine took care of those spaces. At least in my mind*.

While eventually the disruptions occasioned by using these substances were harmful, initially for AW using substances countered prior harms of social marginalization, powerlessness, and precarity.

Prescribed pharmaceuticals

Using prescribed pharmaceuticals generally meant health-related concerns were being addressed, a typically positive interpretation held by interviewees and in society. At the same time, the ability of pharmaceuticals to alter mood and perception led some to complex meanings about identity and occupational performance, such as Interviewee BX's reflections on using antipsychotics:

> *I've heard a lot of people say 'well if you're taking medication that's changing your thinking, then you're no longer you anymore.' Like you're changing yourself. I don't necessarily think that's always true. You're not necessarily exactly the same as you are when not taking a substance. … maybe you are less you, but that doesn't make you less human. And it maybe is actually making you more human, more able to connect with other humans. More able to do the … occupations that you need to do to be yourself.*

Interviewees who used pharmaceuticals for mental health also expressed concerns about stigma if their substance use became known. This related less to public understandings about potential adverse effects of pharmaceuticals than to pervasive social stigma surrounding mental illness and professional competence.

Meanings as shifting and variable

Meanings of substance use are not fixed and shift over time. As interviewees progressed from student to practicing professional, the meanings of substance use tended to change according to responsibilities. Caffeine use, being highly embedded in workplace culture, sometimes increased; use of alcohol, cannabis, and illicit substances typically decreased. Interviewees described sudden changes from undergraduate studies, to professional programs, to professional roles: "*When you go from an undergrad degree to a professional degree it's almost like your mindset completely changes … I still went out on the weekend sometimes*, [but] *it wasn't every weekend*" (Interviewee MF). Among youth, excessive and illicit substance use was normalized: "*When you're younger, things are just more accepted and you're trying them and it's not a problem – or it's normal, or you're a partier, it's fun, or it's the norm*" (Interviewee TX).

Personal substance use was highly influenced by one's professional identity, perceived status as a role model held to high standards of public conduct, and professional codes of conduct governed by professional regulatory bodies. Some participants thought continuing substance use into adulthood was juvenile: "*Just, unprofessional, stupid, and maybe something that people should grow out of*" (Interviewee TQ). Changes in substance use aligned with professional and personal roles, priorities, and responsibilities: "*Come on, you're in your 30s now, like, get your shit together. … It's* [cocaine use is] *something that now, it's not cool*" (Interviewee TX).

Participants attributed such changes to adult responsibilities to family and work:

> *Having a girlfriend and bills. Having a career. All these things just come first, over any of that other stuff. And less free time. When you're a student, you just are doing school and everything else is just a party, pretty much*. (Interviewee OW).

In the context of adult responsibilities, it was less appealing to be hungover or coming down from substances, effects exacerbated by physiological aging. Some people suggested substance use and its meanings changed as leisure co-occupations changed, maturing from "*going to clubs and partying*" toward "*dinners with a few friends*" (Interviewee QS). Substance use may still happen but on a different scale. In contrast, Interviewee OE described an increase of alcohol use with professional and other responsibilities, saying, "*Adulting is not all it's cracked up to be*."

Winding down: meaning in the context of other occupations

Substance use rarely occurred outside the context of other occupations. Clearly some occupations – like going to clubs or dinner parties – might occasion substance use. At the same time, interviewees were acutely aware of how substance use would impact other occupations and this would inform decision-making about what to use, how much, and the effect of a substance on the performance or enjoyment of a particular occupation. For instance, caffeine might be used to increase alertness during the day and promote work efficiency, but too much could interfere with sleep; alcohol might increase sociability, but impair driving; cannabis might make housework more enjoyable, but hinder paid work.

Consistent with the survey data, the effects of substances reported by interviewees were predominantly, though not exclusively, positive. One strong theme related to using substances for the purpose of 'winding down,' a way of coping with stress. As suggested by Interviewee HS: "Everyday life stresses can really weigh you down. And alcohol, even smoking cigarettes, the morning cup of coffee – it's just a way to unwind and feel good." Some people reported stress was associated with headaches, insomnia, and anxiety, which then related to use of pain suppressants, sleeping medication, and anxiolytics.

Work was a particular source of stress, due to work hours, shift work, workload, deadlines, client emotions, responding to crises, emotional and cognitive burn out, exhaustion, and working through breaks. Where wine and beer were often discussed in relation to socializing, dispelling work stress sometimes meant stronger spirits: "*When I'm feeling not well, mentally, from work, I don't go for the wine or beer, I go for the whiskey because it's a stronger*…" (Interviewee CV). Cannabis was used in relation to work stress to "stop thinking all the time" (Interviewee OD), provide "a moment when my brain will be shut down" (Interviewee QS), and "take the edge off" (Interviewee QZ). Caffeine provided similar effects, helping people relax as the work day started, "usually one of the most stressful moments of my day" (Interviewee VL).

For most, full-time work with only two days off per week was insufficient to unwind.

> *I have these two days off and my mind is going 'oh my gosh you've gotta jam so many activities.' You've gotta workout, you've gotta cook, you've gotta clean the house. You've gotta do all this stuff and you've gotta relax. You're telling yourself to relax, but you still feel wound up … I just find by Sunday I'm equally as drained as if I've been at work*. (Interviewee XS).

Along with substance use, interviewees had devised other ways of managing work stress, such as self-care, rest, and sleep.

In contrast to the relentlessness of work stress, stress during professional education was described as intense but intermittent, with an eventual end-point. Caffeine, cannabis, and alcohol were used, in part, to 'push through,' to alleviate the stress of assignments, exams, and constant deadlines as well as anxiety and fear about adequate performance. Substance use in school was often episodic, almost expected following periods of intense demands: "*After a big exam or something really stressful of that nature that you were gonna go out and drink it off*" (Interviewee QF). As the intensity of professional school gave way to work routines, some were less likely to "need that break at the end of the week" (Interviewee AU).

In professional contexts, interviewees experienced high social value placed on productivity or 'busyness' as a measure of self-worth. Several interviewees suggested constantly running from one activity to the next feeds into a culture of substance use among professionals:

> *We have this culture of busy-ness, right? It's good to be busy. Saying that 'I don't have time to do something' is this point of pride now. Which is stupid. It's truly stupid. It's truly ridiculous. But we prioritize being busy and we wear our busyness as a badge of honor. But, it's not about being busy. It's about being exhausted. Truly busy people are not especially talking about busyness, they talk about exhaustion. And I am. I am exhausted. All the time. All the time. 100% of the time I'm exhausted. That's why stimulants are my drug of choice*. (Interviewee JV).

Interviewees were also asked what other, non-substance related occupations provide similar desired effects, naming exercise, adequate sleep, meditation, engagement in leisure, journaling, and other self-care. Despite these alternatives, substance use was often preferred, not least because of time: "Those take more time. Right? Than having a cup of coffee or having a glass of wine" (Interviewee MO). Interviewee BE echoed this:

> *In the end it's like, 'I have twenty minutes.' … you probably feel that you don't have the energy to do anything … and the last thing you want to do is say like 'I'm gonna go and run for twenty minutes.' But that might be the best thing for you, even though it takes the most effort*.

For many, work and family obligations hindered positively meaningful occupations, such as running or yoga: "Obviously it's important to work, you need the money, but so many people are sacrificing the things that do give them those good feelings" (Interviewee XS). In that context, substance use means as an accessible, fast, reliable occupation to cope with stress. Interviewee BE suggested "instant gratification" is part of the meaning of substance use: "*If you're anxious about something it's easier to take a pill… rather than look at well what's actually causing this*".

Discussion

Meaning of occupation

Meanings of substance use as a *discrete occupation* were diverse and complex, differing by person, substance, context, and life stage. Personal meanings arose from perceived

risks of addiction, performance expectations, and life roles, which *change over time* and within context. Aligned with activity theory, meanings are inherently social, connected to collective and shared occupations. Meanings are embedded in broader social context that influence values, social norms, and ideas about optimal performance. As a *co-occurring occupation*, substance use was shown to be highly integrated into people's daily routines, rituals, and lives, influencing the meaningfulness of other occupations. Substance use, particularly alcohol consumption, co-occurred with a wide range of social occupations (e.g., dinners, sports, celebrations, vacations), so closely 'coupled' that interviewees expressed feelings of exclusion if they abstained, or a need to justify *not* using in such contexts. Similarly, caffeine use was closely entwined with professional work contexts and expectations of productivity. Accordingly, meanings of substances become entangled with meanings of co-occurring occupations.

Meanings emerged from the potential of substances to alter performance, participation, and experience of other occupations. It was considered both an expectation of maturity and a professional responsibility to mitigate any adverse effects on work- or family-related occupations. Substances, regardless of classifications of licit, illicit, or pharmaceutical, were used predominantly to enhance occupations, to transform meaning, or to mitigate less desired experiences. Caffeine, Adderall, and antidepressants, for example, were used to directly enhance work performance, while cannabis could transform a mundane chore into an enjoyable activity. Consistent with other literature, it would appear substances are sometimes used to return to a therapeutic baseline (e.g., antianxiety medications, sleep medication), while at other times to extend beyond one's natural limits (Forlini, 2018). As an enhancement substance, caffeine meant increased alertness, wakefulness, concentration, and mental clarity, enhancements desired to sustain work and family roles. Personal, collective, and social values placed on work and family roles became incentives for substance use. Even for the interviewee who reported past experiences of substance use that contributed to homelessness and unemployment, there were valued effects that reinforced use beyond the pharmacological effects.

Professionals' use of cannabis and alcohol to unwind, relax, and counteract stress was described as indirectly beneficial to work and other 'adult' responsibilities, such as increasing patience and mitigating burnout. While other occupations (e.g., exercise, leisure, meditation) may provide effects similar to substances, such as improved sleep, mood and energy, these are generally more time consuming with less immediate effects. In the context of full-time employment or school, relying on these occupations to relax or cope with stress appeared unrealistic to interviewees. To some extent, certain positively meaningful occupations (e.g., exercise) are sacrificed at times in people's lives when occupations related to work and parenting are prioritized; substance use may take on those positive meanings.

Socially situated experiences and knowledges

Our study was conducted among a group of professionals in Canada and it is not our intention to convey generalizable findings to other jurisdictions or population. Drug laws, prevalence of substance use, social acceptability of substance use, and social and community contexts vary widely internationally and culturally. We suggest analysis be informed by broad conceptualization of the concept of 'meaning' and interpretations of

meaning situated contextually. Reviewing work by Godoy-Vieira et al. (2018) and Sy et al. (2019), these authors delve into the complex meanings of substance use within specific contexts and among specific populations.

Addressing substance use in Brazil, Godoy-Vieira et al. (2018, p. 308), note that work "[...] has positive meaning, giving rise to human-ness" yet in the context of neoliberal capitalism, alienation, and uncertainty, consumption of substances was found to be a response to difficult working and living conditions. Structured working conditions are considered a root cause of substance use, making marginalizing conditions and the place of individuals within them a legitimate focus for emancipatory occupational therapy practice. Sy et al.'s (2019) research was undertaken in the Philippine's when policies of 'neutralization' were being enforced, resulting in State sanctioned execution of over 9,000 people suspected of drug-related crime. They position substance use in the context of globalization and neoliberalism, where people are pressured to work longer hours at the expense of health and wellbeing. Using drugs is a means to increase productivity by improving stamina to work long hours and engage in hard work, but simultaneously risks punitive measures and development of substance use disorders.

Viewed alongside the work by Godoy-Vieira et al. (2018) and Sy et al. (2019), our research reinforces of the importance of examining occupations as socially, politically, economically, culturally, and historically situated. Drawing on activity theory, where 'activity' is a social, mediated, multilevel interaction between actor and the world, influenced by community, the futility of attempts to identify concrete meanings of substance use or associated occupations becomes clear. A comparative analysis might uncover commonalities, such as a prevailing influence of neoliberal capitalism on individual and collective 'decisions' around substance use. Yet, personal, collective, and social realities differ and interpretations of meaning cannot be assumed to be transferable from one population to the next. For instance, we found that men and women shared similar meanings of substance use in relation to professional roles and professional education role (Kiepek & Ausman, unpublished data). This might differ across countries and cultures.

Complicating our disciplinary concepts

We acknowledge that labelling 'positive' and negative' meanings reinforces dualistic conceptualizations constrains deeper understanding of phenomena. Mearman (2005, p. 631) presents the potential for 'heuristic dualism,' where one of the dualistic categories is created "[...] to impose some order on the world, at least in thought, because of the complexity of reality and the limits on human computational abilities" however, such a dualism is a temporary analytical step and resists immutable categorization. Our analysis is not to lock investigations into a "fixed paths" or "false binary distinctions" that obscure nuanced and "fruitful inquiry" (Mearman, 2005, p. 632), but to bring awareness to the far ends of a continuum.

It has been contended that fields which lack coherence and conceptual clarity also lack the "[...] conceptual tools able to accumulate and integrate empirical facts and to enrich and put critical perspectives on individual and collective phenomena" (Mammen & Mironenko, 2015, p. 681-682). However, scholars in occupational therapy contend that a lack of coherence and unity may serve theoretical advantage (Hammell, 2011; Rudman et al., 2008).

Limitations

This study was designed to explore the effects of substances and perspectives on professional regulation, not to explicitly explore meanings of substance use and associated occupation; therefore, the data on these topics is not as ideally robust. When recruiting, professional societies and associations acted to some extent as gatekeepers with differing methods of inviting members. The sample size is not representative of all Canadian professionals, but substance use experiences among participants were diverse. We acknowledge the authors are embedded in professional cultures that tend to frame occupation as positive; shifting analysis to more nuanced interpretations that resist exclusively positive framing or over-represent dualistic interpretation requires vigilance and ongoing critical reflexivity.

Conclusion

Our goal was to suspend assumptions about meanings of substance use and associated occupations and explore implications for conceptual understanding. Our findings suggest that meanings are not inherent to substances or occupations; rather, personal, collective, and social meanings are situated in relation to other occupations and in context. Our study uncovered social and collective occupation-affiliated contexts that influenced substance use, such as enhancing social connections and alleviating work-related stress. The findings further reveal that meanings are not static and evolve over time and space, as circumstances change.

We suggest it is not the role of occupational therapy to 'uncover' or 'ascribe' universal meanings of discrete occupations; rather, occupational therapy can contribute insights to the ways in which contextually situated meanings shape people's occupational choices (Hammell, 2020) and experiences.

One area for further study is the implication of how the concept of 'meaning' shapes approaches to assessment and analysis. In some areas of inquiry, the utility of assessment may be enhanced by providing opportunity to elicit more diverse and dynamic meanings. Another area for future study, aligned with social occupational therapy (Malfitano & Lopes, 2021), is the extent to which substance use is a personal decision and individualized responsibility (amenable to individual intervention) and the extent to which it is influenced broader social contexts and values (amenable to reform of institutional and regional policies and/or health promotion initiatives).

Implications

We foregrounded an analysis of the ways in which occupations typically conceptualized as 'positive,' 'healthy,' and desired 'therapeutic outcomes' hold more complex individual, collective, and social meanings. These findings provide evidence and reinforce the potential for occupational therapy to broaden interpretations beyond assumed 'positive' meanings of sanctioned and valued occupations – such as paid work and parenting. Acknowledging the potential for people to simultaneously perceive variations in meanings (neither exclusively positive nor negative) can inform the types of questions integrated into research and practice. Knowing that for any individual

client the meanings of an occupation may be multiple and contradictory, may shift with time and space, may be mutually constructed through co-occurring occupations, and will always be socially, historically, culturally, politically, and economically contextualized, suggests nuanced attention to the complexity of meaning is essential.

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References

Aziz, S. (2021). There are growing calls for drug decriminalization: could it solve Canada's opioid crisis? *Global News*. Retrieved in 2021, June 3, from https://globalnews.ca/news/8359890/drug-decriminalization-opioid-crisis/

Boiteux, L., Chernicharo, L. P., & Alves, C. S. (2014). Human rights and drug conventions: searching for humanitarian reason in drug laws. In B. C. Labate & C. Cavnar (Eds.), *Prohibition, religious freedom, and human rights: regulating traditional drug use* (pp. 1-23). Berlin: Springer. http://dx.doi.org/10.1007/978-3-642-40957-8_1.

Braun, V., & Clarke, V. (2006). Using thematic analysis in psychology. *Qualitative Research in Psychology*, *3*(2), 77-101. http://dx.doi.org/10.1191/1478088706qp063oa.

Canada. (2019, September 18). Average earnings or employment income, by age group and highest certificate, diploma or degree (x 1,000). *Statistics Canada*. Retrieved in 2021, June 3, from https://www150.statcan.gc.ca/t1/tbl1/en/tv.action?pid=3710015201

Canada. (2021). Income of individuals by age group, sex and income source, Canada, provinces and selected census metropolitan areas. *Statistics Canada*. Retrieved in 2021, June 3, from https://open.canada.ca/data/en/dataset/a6ca7336-656c-4ca5-98d1-ceb9c9b6bfc9?activity_id=b125d060-2ffc-4d8b-8bfb-7df4f7247498

Clemmensen, T., Kaptelinin, V., & Nardi, B. (2016). Making HCI theory work: an analysis of the use of activity theory in HCI research. *Behaviour & Information Technology*, *35*(8), 608-627. http://dx.doi.org/10.1080/0144929X.2016.1175507.

Cohen, S. A., Cook, S., Kelley, L., Sando, T., & Bell, A. E. (2015). Psychosocial factors of caregiver burden in child caregivers: results from the new national study of caregiving. *Health and Quality of Life Outcomes*, *13*(1), 120. http://dx.doi.org/10.1186/s12955-015-0317-2.

Cooke, A. (2020). N.S. police chiefs back call to decriminalize possession of small amounts of illegal drugs. *CBC News*. Retrieved in 2021, June 3, from https://www.cbc.ca/news/canada/nova-scotia/nova-scotia-police-chief-decriminalizing-drugs-1.5648297

De Coster, S., & Heimer, K. (2017). Choice within constraint: an explanation of crime at the intersections. *Theoretical Criminology*, *21*(1), 11-22. http://dx.doi.org/10.1177/1362480616677494.

Dunn, M., & Forlini, C. (2020). The non-medical uses of prescription stimulants in the Australian context. In K. van de Ven, K. J. D. Mulrooney & J. McVeigh (Eds.), *Human enhancement drugs* (pp. 156-169). New York: Routledge.

Engestrom, Y. (2000). Activity theory as a framework for analyzing and redesigning work. *Ergonomics*, *43*(7), 960-974. http://dx.doi.org/10.1080/001401300409143.

Evetts, J. (2013). Professionalism: value and ideology. *Current Sociology*, *61*(5-6), 778-796. http://dx.doi.org/10.1177/0011392113479316.

Forlini, C. (2018). Q&A with Dr Cynthia Forlini on the ethical issues around cognitive enhancement. *HED Matters*, *1*(2), 6-8.

Godoy-Vieira, A., Soares, C. B., Cordeiro, L., & Campos, C. M. S. (2018). Inclusive and emancipatory approaches to occupational therapy practice in substance-use contexts. *Canadian Journal of Occupational Therapy*, *85*(4), 307-317. http://dx.doi.org/10.1177/0008417418796868.

Hammell, K. W. (2004). Dimensions of meaning in the occupations of daily life. *Canadian Journal of Occupational Therapy*, *71*(5), 296-305. http://dx.doi.org/10.1177/000841740407100509.

Hammell, K. W. (2011). Resisting theoretical imperialism in the disciplines of occupational science and occupational therapy. *British Journal of Occupational Therapy*, *74*(1), 27-33. http://dx.doi.org/10.4276/030802211X12947686093602.

Hammell, K. W. (2020). Making choices from the choices we have: the contextual-embeddedness of occupational choice. *Canadian Journal of Occupational Therapy*, *87*(5), 400-411. http://dx.doi.org/10.1177/0008417420965741.

Hart, C. L. (2021). *Drug use for grown-ups: chasing liberty in the land of fear.* London: Penguin Press.

Hiasat, J. G., & Nischal, K. K. (2020). Traumatic brain injury in children: sport-related concussions in children. *Journal of Binocular Vision and Ocular Motility*, *70*(4), 128-133. http://dx.doi.org/10.1080/2576117X.2020.1826289.

Hjørland, B. (2009). Concept theory. *Journal of the American Society for Information Science and Technology*, *60*(8), 1519-1536. http://dx.doi.org/10.1002/asi.21082.

Ivankova, N. V., Creswell, J. W., & Stick, S. L. (2006). Using mixed-methods sequential explanatory design: from theory to practice. *Field Methods*, *18*(1), 3-20. http://dx.doi.org/10.1177/1525822X05282260.

Katzung, B. G., Kruidering-Hall, M., & Trevor, A. J. (2019). Introduction. In B. G. Katzung, M. Kruidering-Hall & A. J. Trevor (Eds.), *Katzung & Trevor's pharmacology: examination & board review* (pp. 1-17). New York: McGraw-Hill Education.

Keponen, R., & Kielhofner, G. (2006). Occupation and meaning in the lives of women with chronic pain. *Scandinavian Journal of Occupational Therapy*, *13*(4), 211-220. http://dx.doi.org/10.1080/11038120600672975.

Kiepek, N., & Magalhães, L. (2011). Addictions and impulse-control disorders as occupation: A selected literature review and synthesis addictions and impulse-control disorders as occupation. *Journal of Occupational Science*, *18*(3), 254-276. http://dx.doi.org/10.1080/14427591.2011.581628.

Kiepek, N., Phelan, S., & Magalhães, L. (2014). Introducing a critical analysis of the figured world of occupation. *Journal of Occupational Science*, *21*(4), 403-417. http://dx.doi.org/10.1080/14427591.2013.816998.

Kiepek, N., Beagan, B., & Phelan, S. (2019b). Substance use to enhance occupational performance and experience: A critical interpretive synthesis. *Cadernos Brasileiros de Terapia Ocupacional, 27*(4), 843-857. https://doi.org/10.4322/2526-8910.ctoAR1926

Kiepek, N., & Beagan, B. (2018). Substance use and professional identity. *Contemporary Drug Problems, 45*(1), 47-66. 10.1177/0091450917748982

Kiepek, N., Beagan, B., & Harris, J. (2018). A pilot study to explore the effects of substances on cognition, mood, performance, and experience of daily activities. *Performance Enhancement & Health*, *6* (1), 3-11. https://doi.org/10.1016/j.peh.2018.02.003

Kiepek, N., Van de Ven, K., Dunn, M., & Forlini, C. (2019a). Seeking legitimacy for broad understandings of substance use. *The International Journal on Drug Policy*, *73*, 58-63. http://dx.doi.org/10.1016/j.drugpo.2019.07.014.

Labate, B. C. (2014). *Ayahuasca shamanism in the Amazon and beyond.* New York: Oxford University Press. http://dx.doi.org/10.1093/acprof:oso/9780199341191.001.0001.

Malfitano, A. P. S., & Lopes, R. E. (2021). Preface. In R. E. Lopes & A. P. S. Malfitano (Eds.), *Social occupational therapy: Theoretical and practical designs* (pp. xiii-xxi). Philadelphia: Elsevier.

Mammen, J., & Mironenko, I. (2015). Activity theories and the ontology of psychology: learning from Danish and Russian experiences. *Integrative Psychological & Behavioral Science*, *49*(4), 681-713. http://dx.doi.org/10.1007/s12124-015-9313-7.

Mangat, P. (2020). Directive for prosecutors to apply leniency for some drug-possession cases gets nod from Canada's top doc. *The Hill Times*. Retrieved in 2021, June 3, from https://www.hilltimes.com/2020/08/21/directive-for-prosecutors-to-apply-leniency-for-some-drug-possession-cases-gets-nod-from-canadas-top-doc/261031

Mearman, A. (2005). Sheila Dow's concept of dualism: clarification, criticism and development. *Cambridge Journal of Economics*, *29*(4), 619-634. http://dx.doi.org/10.1093/cje/bei019.

Morse, J. M. (1995). The significance of saturation. *Qualitative Health Research*, *5*(2), 147-149. http://dx.doi.org/10.1177/104973239500500201.

Nelson, D. L., Thompson, G., & Moore, J. A. (1982). Identification of factors of affective meaning in four selected activities. *The American Journal of Occupational Therapy*, *36*(6), 381-387. http://dx.doi.org/10.5014/ajot.36.6.381.

Polanyi, M., & Prosch, H. (1975). *Meaning.* Chicago: Chicago Press.

Race, K. (2017). Thinking with pleasure: experimenting with drugs and drug research. *The International Journal on Drug Policy*, *49*, 144-149. http://dx.doi.org/10.1016/j.drugpo.2017.07.019.

Rudman, D. L., Dennhardt, S., Fok, D., Huot, S., Molke, D., Park, A., & Zur, B. (2008). A vision for occupational science: reflecting on our disciplinary culture. *Journal of Occupational Science*, *15*(3), 136-146. http://dx.doi.org/10.1080/14427591.2008.9686623.

Saunders, B., Sim, J., Kingstone, T., Baker, S., Waterfield, J., Bartlam, B., Burroughs, H., & Jinks, C. (2018). Saturation in qualitative research: exploring its conceptualization and operationalization. *Quality & Quantity*, *52*(4), 1893-07. http://dx.doi.org/10.1007/s11135-017-0574-8.

Sy, M. P., Bontje, P., Ohshima, N., & Kiepek, N. (2019). Articulating the form, function, and meaning of drug using in the Philippines from the lens of morality and work ethics. *Journal of Occupational Science*, *27*(1), 12-21. http://dx.doi.org/10.1080/14427591.2019.1644662.

Tam, K. Y. Y., Poon, C. Y. S., Hui, V. K. Y., Wong, C. Y. F., Kwong, V. W. Y., Yuen, G. W. C., & Chan, C. S. (2020). Boredom begets boredom: an experience sampling study on the impact of teacher boredom on student boredom and motivation. *The British Journal of Educational Psychology*, *90*(Suppl. 1), 124-137. http://dx.doi.org/10.1111/bjep.12309.

Twinley, R. (2013). The dark side of occupation: A concept for consideration. *Australian Occupational Therapy Journal*, *60*(4), 301-303. http://dx.doi.org/10.1111/1440-1630.12026.

van Hooff, M. L. M., & van Hooft, E. A. J. (2014). Boredom at work: proximal and distal consequences of affective work-related boredom. *Journal of Occupational Health Psychology*, *19*(3), 348-359. http://dx.doi.org/10.1037/a0036821.

Vandermeerschen, H., Vos, S., & Scheerder, J. (2015). Who's joining the club? Participation of socially vulnerable children and adolescents in club-organised sports. *Sport Education and Society*, *20*(8), 941-958. http://dx.doi.org/10.1080/13573322.2013.856293.

Walker, I. (2021). The missing 'I' in drug research and the epistemic justice of disclosure. *The International Journal on Drug Policy*, *98*, 103178. http://dx.doi.org/10.1016/j.drugpo.2021.103178.

Wilson, T. D. (2008). Activity theory and information seeking. *Annual Review of Information Science & Technology*, *42*(1), 119-161. http://dx.doi.org/10.1002/aris.2008.1440420111.

Zhou, J., & Heim, D. (2016). A qualitative exploration of alcohol use among student sportspeople: a social identity perspective. *European Journal of Social Psychology*, *46*(5), 581-594. http://dx.doi.org/10.1002/ejsp.2195.

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Niki Kiepek: project conception, project management, text conception, organization of sources and analysis, review. Brenda Beagan: project conception, review. San Patten: project conception, review. Christine Ausman: research coordinator, recruitment, data collection, analysis, review. All authors approved the final version of the article.

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