Exploring the Social Constructions of 'Addiction' and the Consequences of their Application Within Discursive Practice Through Critical Discourse Analysis

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Abstract

The aim of this research was to explore the consequences of holding different understandings of addiction. A systematic review synthesised research exploring associations between biological-based explanations of addiction and stigma. There was high heterogeneity and variable quality across the included studies, and findings suggest it is not possible to draw clear conclusions of an association between the concepts. Furthermore, it highlighted the challenges of exploring these complex socially constructed concepts, suggesting qualitative methods and the development of ontologies may be of use in future research. To bridge the gap between existing research and the impact of real-world interactions, an empirical study was conducted to illuminate the taken-for-granted socially shared knowledge about addiction, through analysis of discursive practice using critical discourse analysis. Three key discourse topics were identified: the functions of complex addiction, being an "addict" or being "clean" - dualism in addiction, and different perspectives of a "problem". The consequential use of language highlighted the utility of complex understandings of addiction, discourse and vocabulary that can create and maintain a divide between people who have experience of addiction and those who do not. Implications for clinical psychology include research and clinical work for social change, involvement of the wider ecological systems within individual formulation, and further exploration of a proposed paradigm shift away from diagnostic systems. The findings present a selection of possible representations of constructions of addiction and their functions, and should be considered within the context of the study's methodology and limitations. A combined discussion and evaluation of the studies is presented, along with selected reflections on the thesis process.

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Chapter 1: Introduction

The term addiction is widely used in society. Dictionary definitions, such as "a strong inclination to do, use, or indulge in something repeatedly" (Merriam-Webster, n.d.), reflect the versatile everyday use of the term recognised within Western societies. Within academia and clinical practice, addiction as a concept is contested.

There are many different theories of addiction and the need for a more coherent and multifaceted explanation has been highlighted (West, 2013; West & Brown, 2013). Despite this, the question of "what is addiction?" continues to divide professionals with varying views. This lack of agreement and clarity of constructs has been critiqued for hindering the synthesis of research and progression across disciplines in the field (Larsen et al., 2013; West et al., 2019).

Accordingly, there are differing views about what constitutes as an addiction, with some professionals adopting the term "behavioural addiction" to describe gambling and other compulsive behaviours such as gaming or kleptomania. This concept has come from research indicating shared phenomenology and biological processes between behavioural addictions and addictions related to substance use (Grant & Chamberlain, 2016). The Diagnostic and Statistical Manual of Mental Disorders (5th ed.; DSM-5; American Psychiatric Association [APA], 2013) and the International Statistical Classification of Diseases and Related Health Problems (11th ed.; ICD-11; World Health Organization [WHO], 2019) have categorised addiction differently. However, both include terms relating to the use of a variety of substances. Currently in the DSM-5 (APA, 2013), gambling disorder is grouped with substance use under substance-related and addictive disorders. Previously, it was listed as pathological gambling under impulse control disorders. Whereas the ICD-

11 (WHO, 2019) includes gambling disorder and gaming disorder under disorders due to addictive behaviours, separate to disorders due to substance use.

In this thesis, addiction refers to broad tentative definition put forward by Heather (2017):

> a person is addicted to a specified behavior if they have demonstrated repeated and continuing failures to refrain from or radically reduce the behavior despite prior resolutions to do so or if they would have demonstrated such failures under different personal or environmental circumstances. (p.3).

As already referred to, there has been a large body of research looking to answer, what is addiction? With little consensus, exploring the consequences of holding different understandings of addiction is an increasingly important issue. Subsequently, there is growing literature in this area, predominantly focusing on the current dominant brain disease model of addiction. One of the perceived and contested consequences of the current dominant approach is stigma (Hall et al., 2015; Volkow & Koob, 2015). This thesis synthesises research into associations between biological-based explanations of addiction and stigma via a systematic and meta-analytic review (Chapter 2). A bridging chapter follows.

Divergent understandings of addiction could indicate this is not a natural world phenomenon that we can gain *certain knowledge* of, but that there is an important socially constructed aspect of understandings of addiction, warranting further investigation. Rather than searching for a *truth*, the empirical paper within this thesis (Chapter 4) critically explores addiction as a social construction through critical discourse analysis of two corpora: an online public community and focus group discussions. The extended methodology section (Chapter 5) provides a

transparent and detailed account of the methodology and analysis process. Lastly, Chapter 6 contains a combined discussion and critical evaluation of the thesis, and Chapter 7 contains the author's key reflections.

Language understood to perpetuate stigma will not be used in this thesis unless necessary. Therefore, person first language will be used when referring to the concept of addiction, e.g. person who uses substances /gaming /gambling, person with an addiction, person in recovery (Broyles et al., 2014).

Chapter 2: Systematic Review

A Systematic Review Exploring the Impact of Biological-based Explanations of Addiction on Stigma

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(Author guidelines – Appendix A)

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(Author disclosure statements - Appendix B)

Abstract

Background: Proponents of the brain disease model of addiction (BDMA) suggest such explanations reduce stigma, whilst critics believe this is unsubstantiated. Subsequently, research has begun to explore the consequences of BDMA on stigma.

Objectives: This systematic review synthesises evidence for associations between biological-based explanations of addiction and stigma in different populations.

Methods: The literature search was conducted across APA PsychInfo, CINAHL Complete, EMBASE, MEDLINE Complete, OpenGrey, and ProQuest Dissertations and Thesis UK and Ireland databases. The inclusion criteria were as follows: studies (1) written or translated in English, (2) with access to full-text, (3) with human participants, (4) using an experimental design, (5) reporting an association between biological-based explanations of addiction and stigma, (6) measuring at least one domain of stigma, (7) utilising a published measure of stigma, (8) that define addiction by the criteria in the Diagnostic Statistical Manual or the International Statistical Clarification of Diseases and Related Health Problems or by terms used within such diagnostic manuals. A narrative and meta-analytic synthesis of eligible studies were conducted, and these were appraised using Quality Assessment Tool for Observational Cohort and Cross-Sectional Studies.

Results: The meta-analytic review found no statistically significant association between biological-based explanations of addiction and stigma measured by social distance. In addition, a narrative synthesis of studies inappropriate for statistical pooling conveyed mixed findings.

Limitations: This review synthesised a modest number of studies, which prevented exploration of moderators or multiple domains of stigma.

Conclusions and implications: The review highlights high levels of variance within included studies, resulting from the complex socially constructed concepts embedded within the objective. Given this, suggested implications include the development of ontologies within addiction and further qualitative research.

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Keywords: perceived cause, addiction, stigma, systematic review, meta-analysis

Highlights

- Biological-based explanations of addiction had no clear relationship with stigma
- Heterogeneity of eligible studies may reflect the nature of complex constructs studied
- Implications include developing addiction ontologies, and further qualitative enquiry

1. Introduction

Currently the brain disease model of addiction (BDMA) has a dominant influence across research and practice in Western societies. It proposes that substance use alters how the brain functions, which cannot be easily reversed (Leshner, 1997; Volkow & Morales, 2015). The USA's, National Institute on Drug Abuse is the lead agency worldwide for scientific research on drug use and its consequences. Their mission statement includes, "research on… the underlying neurobiological, behavioral and social mechanisms" and "enhance public awareness of addiction as a brain disorder" (National Institute on Drug Abuse, 2020, para. 1). This approach clearly advocates for the BDMA, whilst also acknowledging social and behavioural aspects. In the United Kingdom (UK), the majority of mental health research has government funders such as the Medical Research Council and the National Institute for Health Research (Woelbert et al., 2019). Funding body interests are more general for the advancement of health sciences, but this is not to say it is free from political influence. The Medical Research Council (n.d.) funds various areas of exploration including biological, medical, social and economic across different disciplines. In addition, they fund a training programme to increase and sustain addiction research in the UK, acknowledging that clinical professionals from psychiatry and psychology fields are underrepresented in research. Despite this breadth and advocacy, it seems psychological aspects remain sparse. Additionally, the presence of psychology in addiction services has steadily declined in the UK, in line with the financial pressures of local authority funding and is "seen as an expensive luxury for a system dominated by more medical interventions" (Davis et al., 2016, p. 2). Although described as a dominant influence, it is important to note that there are many theories of addiction and professionals often draw on multiple

theories in practice (Barnett et al., 2018). Those supporting the BDMA suggest that this view reduces stigma experienced by people who use substances (Volkow & Koob, 2015), whilst critics highlight that this claim remains unsubstantiated (Hall et al., 2015).

Research has highlighted the complexities, and variability of definitions of stigma (Brohan et al., 2010; Deacon, 2006). Given this disparity, it has been suggested that the use of the term stigma may misrepresent findings within research (Prior et al., 2003). In addition, Manzo (2004) argues that reaching a consensus on the concept should not come solely from professionals but also be "real" for participants, and that this should precede continued research and intervention.

In the context of these challenges, Fox et al. (2018) combine existing frameworks, models and theories to form a complementing framework describing two overarching categories of people – "those doing the stigmatizing" and "those who are on the receiving end of stigmatisation" (p. 351). The former, often referred to as public stigma, involves processes of stereotypes, prejudice, and discrimination. The latter includes internalised, anticipated, and experienced stigma processes. The authors acknowledge the limitations of their framework, outlining the need for further research on the dimensions within stigma processes and those that have received less focus to date, such as structural stigma.

The high prevalence of stigma and its negative impact highlight the importance of increasing understanding in this area. Systematic reviews show that people with alcohol use disorders (Schomerus et al., 2011), and substance use disorders (Yang et al., 2017) are more stigmatised than other mental health diagnoses. Internalised stigma has been associated with increased mental health

symptom severity and reduced self-esteem, hope, self-efficacy, quality of life, social support, empowerment, and adherence to treatment (Livingston & Boyd, 2010).

Subsequently, literature has begun to explore the influence of BDMA explanations on stigma within different populations. Although literature exploring biological-based explanations of mental health and stigma have been systematically reviewed (Jorm & Oh, 2009; Kvaale et al., 2013; Loughman & Haslam, 2018), the authors of this review found no such reviews specific to addiction. The objective of this review is to synthesise the evidence for associations between biological-based explanations of addiction and stigma in different populations using narrative synthesis and meta-analysis. It also aims to evaluate the strength of the evidence for associations between biological-based explanations of addiction and stigma.

2. Methods

This review is registered on PROSPERO (CRD42020208290), and the protocol can be accessed via https://www.crd.york.ac.uk/PROSPEROFILES/208290_PROTOCOL_20200909.pdf . The inclusion criteria were as follows: studies (1) written or translated in English, (2) with access to full-text, (3) with human participants, (4) using an experimental design, (5) reporting an association between biological-based explanations of addiction and stigma, (6) measuring at least one domain of stigma, (7) utilising a published measure of stigma, (8) that define addiction by the criteria in the Diagnostic Statistical Manual (5th ed.; DSM-5; American Psychiatric Association, 2013), or the International Statistical Clarification of Diseases and Related Health Problems (11th ed.; ICD-11; World Health Organization, 2019), or by terms used within such diagnostic manuals for example ‘addiction’.

The literature search was conducted using EBSCO and OVID across the following databases: APA PsychInfo, CINAHL Complete, EMBASE, MEDLINE Complete, OpenGrey and ProQuest Dissertations & Thesis UK and Ireland. Search fields included authors, title information, abstract, keywords and subjects and the search covered from 1999 to Present. The search terms covered the three main concepts within this review: stigma, addiction and biological-based explanations. The terms are as follows for MEDLINE: ((Stigma*) OR stereotyping OR “Social discrimination” OR “Social distance” OR (MH "Stereotyping") OR (MH "Social Discrimination") OR (MH "Social Distance")) AND (((substance or drug OR alcohol) N2 (abuse or use OR addiction OR misuse or disorder)) OR alcoholism OR gambling OR gaming OR (MH "Substance-Related Disorders") OR (MH "Gambling")) AND (biology OR neuroscience OR neurobiology OR biogenetic OR genetic OR “brain disease model of addiction” OR “disease model of addiction”). Grey literature searches were conducted using as close to the above terms as the databases allowed.

The results of the published literature databases were screened independently by two reviewers at two levels: (1) titles and abstracts, and (2) full text against the eligibility criteria. Forward and backward citation screening of identified relevant articles was conducted. The data extraction form was completed by the first author and checked by a second reviewer. Authors were contacted for full-text articles and missing data; a record of correspondence was kept. Data extraction broadly included study design, participant characteristics, variable characteristics, measures, risk of bias, data, and results. As most studies employed a cross-sectional design, risk of bias was assessed using the Quality Assessment Tool for Observational Cohort and Cross-Sectional Studies (National Institutes of Health, 2014). A second reviewer

independently rated the included studies. Disagreements between reviewers were resolved by discussions with the supervisory team. The search was rerun prior to analysis on 13th April 2021.

2.1 Analysis

The subset of studies found to not be appropriate for meta-analysis were synthesised using a narrative approach, guided by the framework produced by Popay et al. (2006). Of the studies appropriate to pool statistically, each contributed one effect size to the meta-analysis. A decision was taken to pool effect sizes using correlation coefficients (Pearson's *r*) as most included studies utilised a cross-sectional design. In cases where odds ratio and standardised beta coefficients were extracted, these were converted to Pearson's *r*. Beta coefficients were converted using the method outlined by Peterson and Brown (2005) and the method described by Borenstein et al. (2009) was used to convert odds ratios. Where several subgroups of biological-based explanations were reported, these were combined using Fisher's z transformation to calculate the mean. This method was also used when individual items of a measure were reported instead of a total, which was not obtainable from the authors. Amongst studies collecting multiple measures, variability was reduced by using effect sizes from the most common stigma domain, discrimination via social distance.

Analysis was conducted, using the software Meta-Analysis via Shiney Version 1.1.3 (MAVIS; Hamilton et al., 2017). As the studies had high levels of variance (i.e. addiction type, biological explanation, stigma measure), it was assumed the pooled effect estimates were substantially different, thus a random-effects model was utilised (Cuijpers, 2016). Heterogeneity was assessed statistically using I^2 (Higgins, 2003), in addition to visual inspection of the forest plots. There

were insufficient studies to consider post-hoc subgroup analysis. Publication bias could not be examined using funnel plots as the suggested minimum of 30 studies (Lau et al., 2006) was not met.

3. Results

3.1 Study Selection

In total, 1,432 publications were identified from the search, of which 260 were duplicates. Screening at the title and abstract level excluded 1,067 citations that clearly did not fit the eligibility criteria. A full text review was conducted on 103 of the remaining publications; as a full-text copy in English was not obtained, five of the studies could not be reviewed at this level. Ultimately, 14 citations met eligibility criteria, and an additional 16 papers were identified from forwards and backwards citation searching, of which one was included in the review. Of the five studies where full-text was not obtained, four appeared highly relevant to the review including one unpublished study. Given this, no relevant unpublished papers met the criteria. Overall, 15 articles were found reporting on 12 different studies that were included in this review. The PRISMA flow diagram (Page et al., 2021) is shown in Figure 1.

3.2 Study Characteristics

The characteristics of the studies that met the eligibility criteria are given in Tables 1 and 2. Across these studies there were 13,720 participants in total. The populations participants were recruited from included: community (N=6), student (N=3), attorney and physicians (N=1), academics and students (N=1) and community with “mild-moderate alcohol problems” (N=1). Studies were conducted in a limited range of countries USA (N=5), Australia (N=3), (Canada (N=2),

Germany (N=2), Italy (N=1), and Singapore (N=1). All study participants were adults (18 years or above). Ethnicity was reported in seven of the included studies, and in six of these the most common reported ethnicity of participants is White. Female participants ranged from 31.9 percent to 83.8 percent; only two studies recorded diverse gender identities.

Most studies utilised a cross-sectional design (N=9), whilst two employed a between-groups design and one was mixed methods with a cross-sectional design component. In addition, most studies used a vignette depicting an addiction followed by perceived cause and stigma measures (N=8). Two studies wrote the addiction type into the measures, and two manipulated the perceived cause of addiction by giving information prior to the measures. Of the eight vignette studies, seven reported information on the demographic characteristics used to describe the person. Five studies commented on gender but did not include any other demographic information within the vignette; of these five studies, two were male and one described counterbalancing male and female. The remaining two did not detail the gender categories but reported either counterbalancing gender or randomly assigning gender. One study matched the vignette gender and ethnicity to the participant. Finally, one study randomly varied gender, ethnicity and education of the vignette character. The type of addiction examined in most studies was alcohol (N=10), three of these studies also included heroin (N=1), drugs (N=1) or gambling (N=1), and the remaining two focused on addiction (N=1) and substances (N=1). Of the included studies, seven labelled an addiction, four did not and one could not be determined.

3.3 Biological Cause

To measure perceived cause, most studies created measures with a statement of cause and a Likert rating scale to show agreement with the statement (N=8),

whilst one study asked participants to choose a cause statement they agreed with the most. Five studies used published measures, Perceived Causes scale (Link et al., 1999), Essentialist Belief scale used by Haslam and Levy (2006), Causal Beliefs about Mental Illness (Reavley & Jorm, 2014), Public Attitudes about Addiction survey (Broadus & Evans, 2015), and Addiction Belief Scale (ABS; Schaler, 1995). The definitions of biological cause varied amongst studies; see Table 2 for details. Different combinations of the following causes were included under biological-based explanation across studies: genetics or inherited, chemical imbalance, brain disease, disease model of addiction, biological factors, neurobiological factors, personality, addictive properties of substances, repetitive use, cannot change having an addiction, can be cured, physical disease, brain injury, health weakness, and biogenetic factors.

3.4 Stigma

The domains of stigma and methods of measurement varied across the included studies. Domains described are consistent with those delineated in systematic review of measures (Fox et al., 2018); see Table 2 for details. Social distance was commonly measured (N=6) via several scales (Smith et.al, 1971-2014; Link et al., 1987; Martin et al., 2000; Tanaka et al., 2004). Dangerousness was measured in three studies using different scales (Horch & Hodgins, 2008; National Opinion Research Center, 1972; Penn et al., 1994). All other types of stigma measures varied across studies including the Medical Condition Regard Scale (MCRS; Christison et al., 2002); Perceived Devaluation Discrimination scale (PDD; Link, 1987); Self-Stigma of Mental Illness Scale (SSMIS; Corrigan et al., 2006); personal subscale of the Depression Stigma Scale (DSS; Griffiths et al., 2004); Personal and Perceived Public Stigma (Holman, 2015); Attitudes to Mental illness Questionnaire (AMIQ; Luty et al., 2006); Attribution Questionnaire (AQ; Corrigan

et al., 2002); Emotional Reactions from Schomerus, Matschinger, and Angermeyer (2013); and Characteristics from Penn et al. (1994).

3.5 Quality of included studies

The risk of bias ratings for each of the included studies are provided in Table 2. This suggests that the least risk of bias was present in studies conducted by Wiens and Walker (2015), Speerfork et al. (2014), Schomerus et al. (2014), and Henderson, & Dressler (2017). The majority of the studies were rated as medium risk of bias. Two studies were rated as high risk of bias due to increased levels of items that were difficult to determine, or information was not reported within the articles.

Although measures of perceived biological cause were all clearly defined and consistently administered, the majority were created by the authors and therefore evidence of their psychometric properties was absent. Of the published measures used, three had information on reliability, all with Cronbach's α above 0.7. Most of the perceived cause and stigma measures lacked validity. This seems to result from studies adapting or making use of measures designed for stigma of mental health as opposed to addiction specific measures. One study used a stigma measure with no psychometric information published. The remaining eleven were documented to employ reliable stigma measures all with Cronbach's α above 0.7.

Figure 1

Prisma Flow Diagram

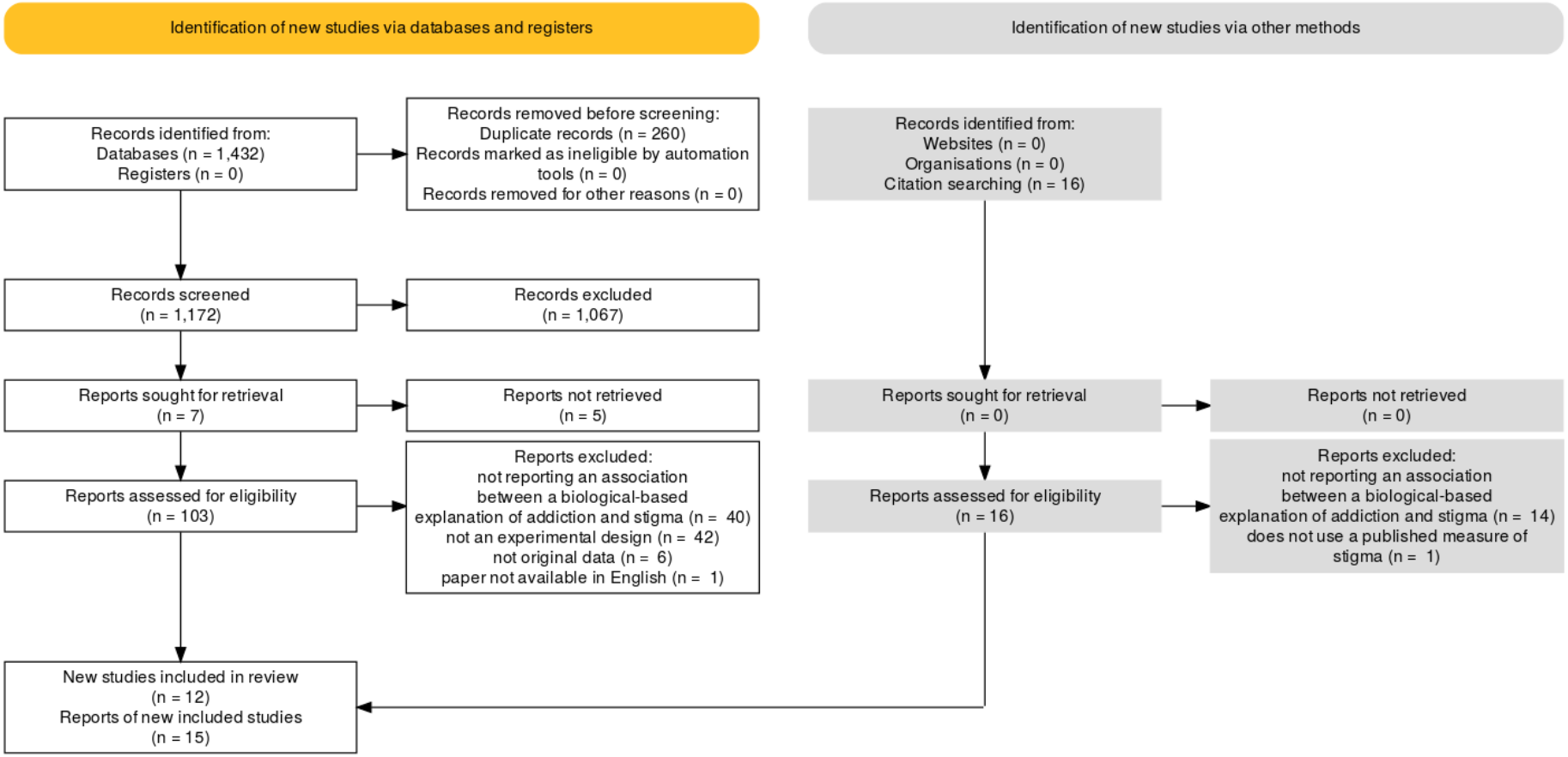


Table 1

Study Characteristics

Study	N (n[a])	Population	Age M (SD)	Ethnicity	% Female
Meta-analysis					
Haqanee, & Lalonde (2014)	127 (47)	student	21.0(3.7)	37.5% White, 17.5% South Asian, 11.7% Asian, 8.3% Black, 6.7% mixed, 18.3% other	72.4[a]
Hing et al. (2016)	2000 (2000)	community	46.0 (16.7)	Not reported	51.5
Meurk et al. (2014)	1263 (608)	community	18-24 yrs = 24.9% 25-34 yrs = 7% 35-44 yrs = 16.5% 45-54 yrs = 18.6% 55-64 yrs = 22.6% 65+ yrs = 30.6%	Not reported	50.3
Pescosolido et al. (2010); Schnittker (2008)	1996: cd (273) 2006: cd (346)	community	1996: 43 (16) 2006: 45 (17)	1996: 81% White 2006: 75% White	1996: 51 2006: 54
Rundle et al. (2021)	1072 (420)	community	34.7 (11.2)	67.2% White	38.5
Speerfork et al. (2014); Schomerus et al. (2014)	3642 (1145)	community	18-25yrs = 8.5% 26-45 yrs = 30.7% 46-60yrs = 28.5% 61+yrs = 32.4%	Not reported	54.4
Subramaniam et al. (2017); Pang et al. (2018)	3006 (602)	community	40.9 (-)	74.7% Chinese, 9.1% Indian, 12.8% Malay, 3.3% other	49.1

Study	N (n)	Population	Age Mean (SD)	Ethnicity	% Female
Narrative Review					
Avery et al. (2020)	739 (739)	attorneys & physicians	A: 51.9(13.8) P: 31.2 (4.8)	P: 49.8% White, 5.3% Black/African American, 5.6% Hispanic/Latino/Latinx, 21.3% Asian/Pacific Islander, 0.3% Native American, 7.3% Middle Eastern, 2.3% multiracial, and 8.0% other or preferred not to disclose. A: 87.8% White, 3.1% Black/African American, 4.3% Hispanic/Latino/Latinx, 0.8% Asian/Pacific Islander, 0.8% Native American, 0.4% Middle Eastern, 1.4% multiracial, and 1.2% other or preferred not to disclose.	A: 31.9[c] P: 48.5[c]
Heberlein et al. (2014)	444 (cd)	academic & student	Control: 26.21 (6.82) Socio: 25.78 (6.46) Neuro: 26.41 (6.59)	Not reported	cd
Henderson, & Dressler (2017)	cd (212)	student	18.94 (-)	80% White	67.9
Mannarini & Boffo (2015)	360 (cd)	student	23.81 (3.15)	Not reported	83.8
Wiens and Walker (2015)	159 (29)	mild-moderate alcohol “problems”	29.8 (8.1)	79% White	33

Note**.** cd = cannot determine. A = attorneys. P = physicians.
[a] sample relevant to systematic review objective. [b]3.9% unspecified. [c] A: 0.4% transgender/other/preferred not to disclose P: 2.3% transgender/other/preferred not to disclose.

Table 2

Study Characteristics, Results and Risk of Bias.

Study	Design	Addiction Type	Addiction Labelled	Biological-based Cause	Stigma Measure	Stigma Domain	Association	Risk of Bias
Meta-analysis								
Haqanee, & Lalonde (2014)	cross-sectional Q	alcohol	yes	G B CC HC	Social Distance	D	○	Fair
Hing et al. (2016)	cross-sectional V	gambling alcohol	cd	G C	Social Distance Dangerousness	D S	↘• [a]	Fair
Meurk et al (2014)	cross-sectional V	alcohol heroin	yes	G C	AMIQ	S D	alcohol ↘• heroin ○	Fair
Pescosolido et al. (2010); Schnittker (2008)	cross-sectional V	alcohol	no	G C	Social Distance Dangerousness	D S	1996 ○ 2006 ○ 1996 ↗• 2006 ○	Fair
Rundle et al. (2021)	cross-sectional V	alcohol	yes	D	Personal & Perceived Public Stigma	P S D PS PD[b]	○	Fair
Speerfork et al. (2014); Schomerus et al. (2014)	cross-sectional V	alcohol	no	G C BD	Emotional reactions i) fear ii) anger iii) prosocial reactions Social Distance	P D	 G C BD ↗• G C BD ↗• C & BD ↗• G ○ C & BD ↘• G ○	Good
Subramaniam et al. (2017); Pang et al. (2018)	Cross-sectional V	alcohol	no	G	Social Distance DSS i) dangerousness ii) weak-not-sick	D S D 	○ ○ ↘•	Fair

Study	Design	Addiction Type	Addiction Labelled	Biological-based Caused	Stigma Measure	Stigma Domain	Association	Risk of Bias
Narrative Review								
Avery et al. (2020)	cross-sectional V	substances	yes	BD with/without choice	MCRS	S D	↘ •[c]	Poor
Heberlein et al. (2014)	between-groups M	alcohol	yes	NB	Characteristics Dangerousness	S S	○ ○	Poor
Henderson, & Dressler (2017)	mixed methods Q	addiction	yes	G R P AP	AQ	S P	↘•[c]	Good
Mannarini & Boffo (2015)	cross-sectional V	alcohol drugs	no	G BG PD BI H	Social Distance	D		Fair
Wiens and Walker (2014)	between-groups M	alcohol	yes	D	PDD SSMIS	PS PD S		Good

Note. V = vignette of addiction type given prior to measures. Q = addiction referred to within measures. M = manipulated belief via providing information about cause. G = genetic/inherited. C = chemical imbalance. BD = brain disease. D = disease model of addiction. B = biological factors. CC = cannot change. HC = can be cured. NB = neurobiological factors. P = personality. AP = addictive properties of substances. R = repetitive use. PD = physical disease. BI = brain injury. H = health weakness. BG = biogenetic factors.
↘ negative association. ↗ positive association. ○ no association. • significant
[a] findings for gambling and social distance only. [b] domains taken from validation paper. [c]Studies analysed using scale of high moral cause agreement with low biological cause agreement.

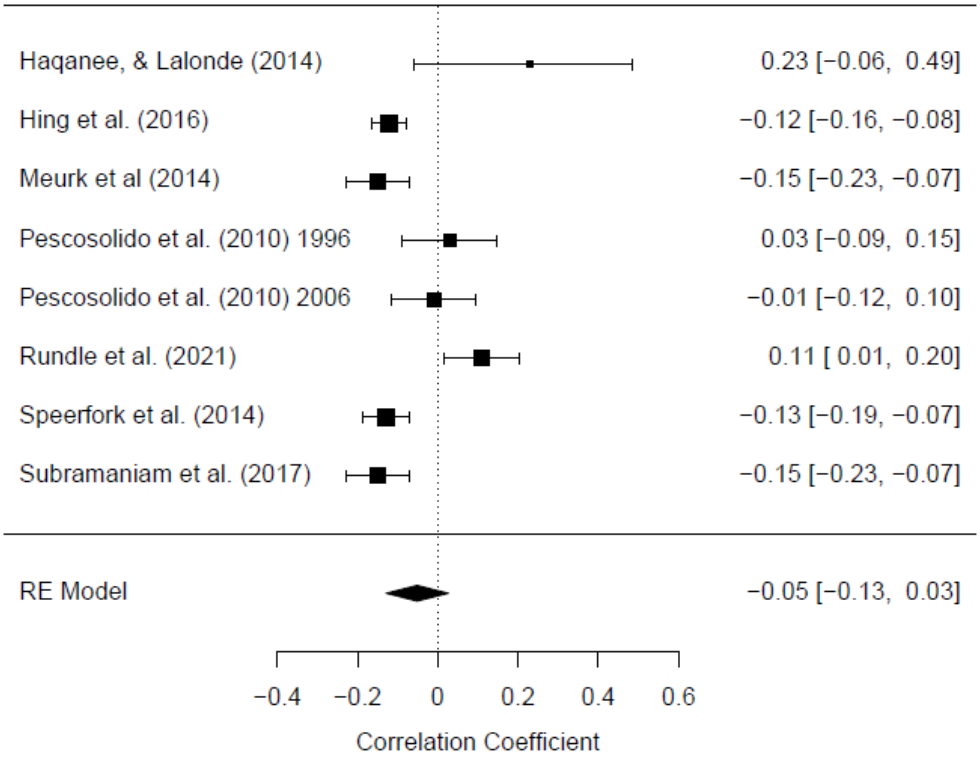
3.6 Meta-analysis

The meta-analysis included eight effect sizes reported in seven publications. As most studies used a cross-sectional design, studies reporting an association having employed a correlation or regression analysis were pooled. As a result, two studies could not be included (Mannarini & Boffo, 2015; Wiens & Walker, 2015). There were insufficient studies employing an interventional design to analyse separately (N=2). Of the remaining 11, two studies could not be included due to using a moral explanation of addiction within analysis as opposed to exclusively the degree of agreement with biological cause (Avery et al., 2020; Henderson & Dressler, 2017), and data were not obtained from the authors of one study (Heberlein et al., 2014). Included studies were predominantly rated as medium risk of bias, with one rated low risk of bias.

No significant association was found between biological-based explanations of addiction and stigma r = -.05 (95%CI=-.13 - .03, z=-1.64, p=0.1006). A forest plot is presented in Figure 2. There was high statistical heterogeneity amongst the included studies (I^2=80.4%).

Figure 2

Forest Plots of Meta-analysis



3.7 Narrative Synthesis of Studies

Two studies manipulated perceived cause of addiction by providing information prior to taking measures of perceived cause and stigma. In the Heberlein et al. (2014) study, the neurobiological explanation group showed significantly less acceptance towards people with an alcohol addiction than the sociodynamic explanation group. Conversely, the neurobiological and control groups rated the characteristics of people with an alcohol addiction significantly more positive than the sociodynamic group. Wiens and Walker (2015) found no significant effects of the perceived cause of addiction on stigma measured using the PDD (Link, 1987). Null findings for the other stigma measure, SSMIS (Corrigan et al., 2006), prompted further exploratory analysis revealing that both neurobiological and psychosocial explanatory models increased stigma in comparison to the control group.

Mannarini and Boffo (2015) used latent class analysis to explore the impact of various variables on stigma, including perceived cause. With mixed results for belief in perceived cause within the latent class, no clear relationship could be found to stigma.

A study exploring the relationship between perceived cause of addiction and stigma amongst attorneys and physicians (Avery et al., 2020) found a significant negative relationship between endorsement of the brain disease model of substance use disorders and stigma across participant groups. However, as the authors used a scale ranging from moral to biological cause rather than differing levels of endorsement of biological cause, no endorsement of the brain disease model also represented participants who endorsed a moral explanation. Making use of a similar scale in a mixed methods study, Henderson, & Dressler (2017) also reported a negative relationship between medical explanations of addiction and stigma.

4. Discussion

This review presents the mixed findings and varied methodology of studies exploring whether there is an association between biological-based explanations of addiction and stigma. The meta-analysis could not be confident that there is an association and demonstrated high statistical heterogeneity across studies. Of those included, most were rated as medium risk of bias except for one low risk of bias study. Studies not suitable for meta-analysis, included two intervention designs with one found that neurobiological explanations led to less acceptance, however the risk of bias was rated as high. The other found both neurobiological and psychosocial explanations led to increased stigma and was rated as low risk of bias. Similarly, a latent class analysis of medium risk of bias found no clear perceived cause amongst

participants, but high levels of stigma. Finally, significant negative associations were found in two studies that included moral causes within the scale as opposed to differing levels of agreement with biological perceived causes, one study was rated as high risk of bias and the other was low risk of bias.

Most studies included in the meta-analysis focussed on one type of addiction - alcohol, and results from one potential domain of stigma - discrimination via social distance. Findings are inconsistent with the dominant theories of stigma arising from perceived individual responsibility via views on controllability and/or dangerousness (Corrigan et al., 2003), and essentialist thinking that biological causes mean something is more fixed (Haslam, 2000). Although not directly comparable, similar findings from systematic reviews focusing on mental illness including addiction typically found no clear relationship between genetic explanations (Jorm & Oh, 2009) or biogenetic explanations (Kvaale et al., 2013) and social distance. Conversely, when excluding genetics from the explanation, Loughman and Haslam (2018) found a marginally positive association between neurobiological explanations and increased desire for social distance, a measure of discrimination, across correlational studies.

High levels of heterogeneity are unsurprising given that there are complex and variable definitions of both stigma (Brohan et al., 2010; Deacon, 2006) and addiction (West & Brown, 2013). These are contested and socially constructed terms, with no formal agreement or international standard. In addition, measures and definitions of biological explanation differed between studies, as did demographic characteristics within vignette-based studies. Qualitative studies have found that people hold several perceived causes of an addiction simultaneously (Hammer et al., 2012; Meurk, Carter, Hall, et al., 2014), therefore attempting to explore them

individually may lack ecological validity. Similarly, stigma resulting from multiple stigmatised identities (intersectional stigma) has not been explored, despite some studies varying other characteristics within the materials, such as gender and ethnicity. A recent literature review highlighted that intersections are often neglected in research and further development in this field has been suggested (Turan et al., 2019). Combined, these may in part explain the inconsistent findings amongst studies, given the challenges this would pose in adequately measuring the phenomena within quantitative methodology. Frequent findings of no association within the studies of this review may also reflect high levels of individual difference or multiple factors involved that cannot be reduced as resulting from a perceived causal explanation. Other explanations to consider may include lack of power resulting from studies included with smaller samples, and one included study that did not control for confounding variables.

The findings of this review should be interpreted in the context of its limitations. There is a modest number of studies included within this synthesis, reducing the ability to statistically pool data pertaining to different domains of stigma or explore moderators via subgroup analysis. Five of the data sets included in the meta-analysis were converted from beta coefficients, although Peterson and Brown (2005) found this to be more accurate than removing studies from meta-analysis, and Roth et al. (2018) found that using this method is not as psychometrically robust and should be avoided where possible. The synthesis is missing data from one eligible study. In addition, the absence of full-text articles excluded four potentially relevant studies from the review, including the only relevant unpublished study found. Furthermore, insufficient studies meant

publication bias was not statistically examined, therefore it is not possible to comment on potential bias resulting from this.

Considering the high levels of heterogeneity, mixed findings and variable quality of studies synthesised in this review, further research examining this question is required in order to draw firm conclusions of an association between biological-based explanations of addiction and stigma. Studies should avoid creating a dichotomy from two different perceived causes without evidence of its existence. Given findings from previous systematic reviews, it may be of value to analyse different types of biological-based explanations separately to identify any potential differences in relationship to stigma. Considering the quality of the studies within this review, selecting and/or developing psychometrically strong measures would improve this. In addition, intersectional and structural stigma should be considered within research. However, this is situated within broader issues already alluded to. The following suggestions are potential directions of further research in response to the difficulties arising from synthesising research containing these complex concepts of interest. Firstly, working toward shared ontologies, that define concepts and vocabulary use within the field and map out the connections between them. This could increase clarity and consistency of concepts across the professions contributing to the addiction field of research (Hastings et al., 2020; West et al., 2019). Secondly, complex concepts and the potential importance of individual differences in this question, may be explored via qualitative studies and subsequent qualitative synthesis.

5. Conclusions

The meta-analysis in this review found no statistically significant associations between biological-based explanations of addiction and stigma, measured by social distance. In addition, the narrative synthesis of studies inappropriate for statistical pooling conveyed mixed findings. The review highlights high levels of variance within included studies, which may in part result from the complex socially constructed concepts embedded within the question. Developing ontologies to improve clarity and consistency of concepts relating to addiction may help to reduce and explicate the variance observed. Further research in this area is required to draw firm conclusions. Recommendations for improving research include the use of psychometrically strong measures, exploring the broad concept of stigma, and analysing different types of biological cause separately.

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Chapter 3: Bridging Chapter

The previous chapter synthesised research exploring associations between biological-based explanations of addiction and stigma. Findings demonstrated no statistically significant relationship. Furthermore, across all eligible studies, findings included a heterogeneous mix of positive, negative and no associations. One of the key explanations for this considered the variability within the studies, which could be understood in the context that both addiction and stigma are widely acknowledged complex concepts that lack clarity, consistency, and agreement in definition.

This presents challenges within quantitative methodology, whereby phenomena require operationalising for measurement. As a result, measures of different domains within concepts are often developed, creating difficulties in generalising results to the concept as a whole when measuring selected domains within it (Cording et al., 2010). The authors suggest moving between different methods as helpful in progressing the understanding of complex constructs. Moreover, utilising both quantitative and qualitative approaches (methodological triangulation) can increase the credibility of research, and provide the benefits of both approaches whilst counterbalancing their limitations (Hussein, 2009). Given the current conceptual challenges, exploring understandings of addiction using a qualitative approach may deploy methods that are more fit for purpose. Qualitative methods can be defined as:

> a rich set of ideas, concerns, and approaches characterized by sensibilities such as an attention to the larger context in which a phenomenon under study is embedded, an attention to the role of language and meaning, an attempt to see whatever is evaluated in light of how it fits into the world as it is for those people whose world it is, an attention to the interactive and socially

> constructed (rather than thing-like) nature of social reality, and an attention to the reflexive, relational and interactive character of research and inquiry, including social and political consequences of doing social inquiry. (Dahler-Larsen, 2018, p. 1493).

Despite differing levels of agreement regarding the way in which the stigma concept and processes are operationalised, there is broad acknowledgment of the existence of the concept. There is also broad agreement that stigma is intrinsically related to inequality within society. This was considered an important aspect to be explored within the methodological approach selected.

The article presented in the following chapter, is a qualitative empirical study utilising a critical discourse analysis (CDA) approach. CDA is described as an approach or a field rather than a method, due to the diversity of the theories, assumptions and methodologies proposed within it (Wodak, 2013). What unites this problem-orientated interdisciplinary field is a shared interest in the discursive practices of power: “It focuses on social problems, and especially on the role of discourse in the production and reproduction of power abuse or domination.” (Van Dijk, 2001, p. 96).

Fairclough’s (1993, 2013) approach to CDA emanates from a critical realist ontological position, acknowledging both the natural and social worlds, but viewing the latter as socially constructed because its existence depends upon human action. Therefore, it is suggested that the central concern of CDA is to consider the socially constructed effects of discourse. Fairclough’s Dialectical-Relational approach is one of the more deductive approaches to CDA. Drawing on Hallidayan theory of linguistics, Foucauldian orders of discourse and the Marxism focus of social conflict (Meyer, 2001). Hallidayan systemic functional linguistics suggests that language is

functional and selected in order to make meanings, which are shaped by their cultural and social context. Foucauldian orders of discourse position discourse as governed by functions, actions and rules. Marxist conflict theory states that there is competition within society over limited resources, and that power and domination is used by those with wealth and power to retain it by suppressing others. Together, these key theoretical aspects underpin the CDA approach that informed this project. This methodology supported the analysis of addiction as a social construction, which enabled the deconstruction and denaturalisation of language in social interactions, to examine and shed light on how different versions of reality are constructed. In addition, it allowed for the much-needed exploration of the function of language, with attention to power imbalances and ideological positions of socially discursive practice.

Chapter 4: Empirical Paper

Exploring the Social Constructions of 'Addiction' and the Consequences of Their Application Within Discursive Practice Through Critical Discourse Analysis.

Written for publication to *Qualitative Health Research*

(Author guidelines – Appendix C)

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Abstract

This article presents the findings of a study aiming to shed light on how addiction is socially constructed. Fairclough's critical discourse analysis approach was employed to scrutinise two corpora, representing the voices of people with an addiction and an online public community. Constructing multiple understandings of addiction and moving between active and passive positions, led to responsibility for own actions and recovery, and coping with blame from self or others. Dismissing this complexity and narrow understandings of addiction left people with an addiction vulnerable to stigma. Language maintaining stigma was presented, however this was not universal, and functions varied between individuals. Within Western societies, addiction was constructed as a problem to be stopped. Such pathologising is situated within Neoliberal ideology emphasising individual responsibility, thwarting the conscientization of how society creates and contributes to the distress of individuals living within it.

Keywords: addiction, critical discourse analysis, social construction, clinical psychology

Introduction

It is widely acknowledged that addiction as a concept is difficult to qualify (Reinarman, 2005), with varying theories (West & Brown, 2013) and a lack of consensus (Goldberg, 2020). A proposed solution includes valuing and bringing together multiple theories via ontologies (West et al., 2019). Models predominantly associated with everyday discourse view addiction as a choice or a disease.

The moral model of addiction was dominant in the first half of the twentieth century. Central to this model, behaviours are considered deliberate and as such are suitable subjects for moral evaluation (Morse, 2004). In western society, people are typically held responsible for actions they have choice over, and moral evaluation results in blame (Pickard, 2017). Whilst this model has been superseded by constructions of addiction as a disease, Pickard (2017) believes the influence of this model continues in the stigma that is felt today. Modern conceptions of addiction as a choice are underpinned by the assumption that behaviours are chosen when perceived benefits outweigh perceived costs (Brown & West, 2017).

The medical model assumes mental health problems are comparable to biological ones and therefore have a measurable physical cause that can be treated (American Psychological Association, n.d.). Bentall (2010) describes how this model in its traditional form is paternalistic. Currently, in Western societies, the brain disease model of addiction (BDMA) is dominant. It proposes that substance use alters the way brains function which cannot be easily reversed (Leshner, 1997; Volkow & Morales, 2015). Critics of the model cite unsubstantiated claims of reducing stigma, lack of research providing evidence for neurobiological processes and the lack of resulting effective treatment as significant concerns (Hall et al., 2015a; Kalant, 2010; Kvaale et al., 2013). In addition, the overinvestment of funding

for research has been at the expense of investing in population-based policies and within a continued context of poor access to psychosocial treatments (Hall et al., 2015b).

A middle ground between addiction as involuntary or as a choice has also been advocated (Heather & Segal, 2016; Henden et al., 2013). Furthermore, Heather (2018) suggested examining the consequences of holding addiction as a disease or choice should be the process by which the dispute should be resolved.

Theoretical consideration has been given to potential functions or consequences of the dominant BDMA construction. Davies (1997), from an attributional theoretical lens, argues BDMA constructions serve useful functions to individuals and society, such as removing responsibility therefore allowing forgiveness and absolving blame. Conversely, (Hammer et al., 2013) suggest such ideas overlook that "diseasing" historically labelled groups who were contrary to the norm. Whilst the authors acknowledge changing a word would not remove stigma, they advocate for the current controversy in creating a dialogue whereby underlying assumptions are critically considered. Focusing on wider societal function, Reinmaren (2005) describes a "double-edged sword" whereby the benefit of access to services, comes the enablement of oppressive drug policies from those in power. Cohen (2000) suggests framing lack of control within addiction as a disease maintains public beliefs that people are usually in control.

Research has highlighted discourse and their functions using a variety of methodologies. Findings saw disease discourse mobilised to alleviate stigma from self or others (Barnett et al., 2018; Meurk et al., 2014), positioning those treating addiction as experts and quietening lay understandings of addiction (Barnett et al., 2018). Abstinence discourse were found to be dominant, leading to ambivalence

towards harm reduction approaches (Brown & Stewart, 2021). Similarly, Frank (2011) found moral/abstinence discourses were associated with the 12 step treatment model discourse, leading to avoidance of "methadone maintenance treatment" (opioid substitution treatment) and negative views towards those engaging with it. Discourse of chaos was described by Fraser and Moore (2008), which created a divide between those who use drugs as chaotic and unproductive and those who do not as "normal" productive people within society. Addiction was often pathologized within discourse, which obscured other psychosocial difficulties (Savic et al., 2017), framed addiction as difficult to stop or irreversible (Hammer et al., 2012), and was situated within individuals despite citing external causes (Pienaar et al., 2015). When participants drew on multiple discourse and explanations of addiction it was viewed positively and reflective of the nature of addiction (Hammer et al., 2012; Meurk et al., 2016). Whilst exploring discourse and identity of "socially integrated" people who use drugs (with employment, permanent residence and structured everyday life), Rødner (2005) found within an anti-drug society that negative constructions of deviant drug use reinforced positive self-presentations. Also focussing on identity, Sibley et al. (2020) found distance from stereotypes of blame, immorality and callousness was created by drawing on passive explanations of addiction, and providing examples of moral acts and motivation to recover.

Although different constructions of addiction have been explored, and are apparent across research studies, this is the first study to our knowledge exploring the broad construct of addiction employing a critical discourse analysis (CDA) methodology. As such, this study sought to illuminate the taken for granted socially shared "knowledge" about addiction, through analysis of language using CDA. In addition, the consequential use of language and implications within clinical

psychology are considered. The objectives were as follows (1) To take a critical discursive perspective to analysis of language used in both an online public community and a specific sample of people who have addiction, to demonstrate the range of discourses available and commonly drawn upon. (2) To explore the power imbalances and ideological positions of socially discursive practice. (3) To make links between the use of discursive resources and consider the clinical implications by demonstrating the consequences of language use.

Language use in this Article

Consensus of addiction-related terminology is lacking, including varied definitions of addiction itself (Walters & Gilbert, 2000) and recovery (White, 2007). This can be seen as an obstacle to the progression of research (Larsen et al., 2013), particularly from a positivist epistemological standpoint. As this study explores addiction as socially created through language use, rather than imposing a definition, exploration is informed by individuals self-identification and use of such terms.

The authors endeavour to avoid using language that may perpetuate stigma by using person first language (i.e. person with an addiction, person in recovery) and avoiding derogatory and identity first language (i.e. “addict”, “dirty”, “junkie”) (Ashford, Brown, & Curtis, 2019; Broyles et al., 2014). As such language is present within the extracts of data, any reproduction in the article is solely for analytical purposes, denoted by quotation marks.

Methods

Design

As data are constrained to their context, collecting data from an online public community and groups of people with experience of addiction provided two

differing contexts to broaden the scope in which the range and commonality of discourse could be explored. As the online data retrieved are in full public view formal ethical approval was not required. Ethical approval for focus groups was granted by the Health Research Authority (HRA) and Health and Care Research Wales (HCRW) (REC reference: 20/LO/0435).

Reddit

Reddit is an online forum with thousands of communities, known as subreddits, organised around different interests. The data were collected from two subreddits, “r/IAmA” and “r/AMA”. Here members post information about themselves offering the opportunity for others to “ask me anything”, and discussion ensues via comments. This was selected over an addiction specific subreddit in an attempt to use a corpus with involvement from a more diverse population, to capture general population discourse. The inclusion criteria were posts and comment threads from r/IAmA and r/AMA around the topic of addiction, and comment threads with more than one comment and response. Advertisements, “pinned” posts, “stickied” comments, and posts written from an ambiguous perspective were excluded.

Data were extracted in line with the purposive sampling procedure on 07.12.2020. Extracted posts covered a range of perspectives and addiction types, outlined in Table 1. In total, 11 posts each with three comment threads were extracted for analysis. This data were created by 88 different Redditors (people who use reddit), 12 of whom created the posts and responded in discussions, and 76 involved in discussion within comment threads. Information pertaining to perspective was limited to 39.8% of Redditors (n=35) and type of addiction 29.5% (n=26), detailed in Table 2.

Table 1

Characteristics of the Reddit Corpus

Post no.	Subreddit	Perspective	Addiction Type
1	r/IAmA	professional, researcher	cannabis
2	r/IAmA	professional, clinical	
3	r/IAmA	father & brother in recovery	depressant
4	r/IAmA	daughter professional, clinical recovered	depressant
5	r/AMA	recovering	
6	r/AMA	partner recovered	opioid
7	r/AMA	current	
8	r/AMA	friend recovered	stimulant & opioid
9	r/AMA	recovered	gaming
10	r/AMA		gambling
11	r/AMA	recovered	hallucinogen, stimulant & cannabis

Note. Ambiguous and non-specific perspectives and addiction types omitted from table.

Table 2

Characteristics of Redditors

Characteristic	Frequency
	n
Perspective	
recovered	16
clinical professional	8
current use	7
research professional	4
recovering	3
partner	3
sibling	2
parent	1
children	1
cousin	1
no addiction	1
friend	1
Addiction type	
tobacco	11
alcohol[a]	6
cannabis	4
drug use (undisclosed)[b]	4
cocaine	3
heroin[c]	3
lysergic acid diethylamide (LSD)	3
crack cocaine	2
painkillers	2
magic mushrooms	2
methamphetamine[d]	2
buprenorphine	1
video games	1
gambling	1
mescaline	1
gabapentin	1

Note. [a] sober assumption alcohol n=3**.** [b] clean assumption drug n=1**.** [c] Intravenous n=1, non-intravenous n=1, undisclosed n=1**.** [d] Intravenous n=1, undisclosed n=1

Focus Groups

Focus groups were recruited to using convenience sampling from a National Health Service (NHS) provider for people who use substances, in South East England. Participation requirements included being 18 years old or above with the capacity to provide informed consent. Suitability was assessed by service

professionals, who also made the initial approach, unless deemed unsuitable for clinical reasons. In addition to recruiting based on these eligibility criteria, maximum variation of backgrounds and experience within the sample were sought where possible. Participants who gave permission to be contacted were then approached by the chief investigator via telephone. Further information about the study was provided, and informed written consent was obtained from those who wished to participate. Participants were asked to complete a short demographic questionnaire using Jisc online surveys.

Two, focus groups were facilitated over video-conferencing technology by two members of the research team. A topic guide was followed with visual prompts, facilitating naturally occurring discussion between group attendees with minimal involvement from researchers. Due to the volume of discussion, only two of the three prepared visual prompts were used on both occasions. Groups were approximately 60 minutes in length, and were audio recorded for analysis. At the end of each focus group, initial reflections were documented and shared between the research team members.

Participants

In total, of the 14 individuals showing interest from the initial approach, nine participants attended the groups (Group 1 n=5, Group 2 n=4). One participant left Group 2 after approximately 20 minutes, but did not withdraw their data. Demographic questionnaires were completed by eight group members. The mean age of participants was 49.75 years (SD 4.46), with 50% identifying as female and 50% as male. Participants self-identified as White (n = 7) and Spanish (n = 1). See Table 3 for summary of socioeconomic, treatment and diagnosis information. Four participants reported receiving or having received support from other services in the

past, three of whom gave details including CBT group, CBT individual, medication via GP, alcoholics anonymous, narcotics anonymous, other charity or public funded services for substance use, detox with private provider, private counselling, eating disorder services, STEPPs programme, and trauma therapy.

Table 3

Sociodemographic Characteristics of Focus Group Participants

Demographic Characteristic	Frequency
	n
Highest qualification	
A Level or equivalent	3
no qualification	2
further education	2
GCSE or equivalent	1
Living arrangements	
living in a rented home	3
homeowner	2
living with family	1
other: living with a partner	1
other: undisclosed	1
Primary substance seeking treatment for	
alcohol	3
benzodiazepines	2
opiates	1
heroin	1
co-codamol	1
Co-morbid mental and physical health[1]	
yes	3
depression	3
anxiety	2
attention deficit hyperactivity disorder	1
post-traumatic stress disorder	1
emotionally unstable personality disorder	1
atrial tachyarrhythmia	1

Analysis

CDA methodology was based on Fairclough's approach (1993, 2013). The audio recordings of the focus group were transcribed, so that all corpora were as written text. The material was familiarised by the first author, before scanning for

particular features that may represent critical moments, such as misunderstandings and sudden shifts in style or content (Fairclough, 1993). In addition, data was coded inductively, and mind mapping techniques assisted the author to group codes into broader themes and consider the connections or disconnection between constructions. Reflections and ideas throughout the process were documented using memos. The order in which this was carried out was determined by the study timeline and national context of the Covid-19 pandemic. The reddit data was extracted and coded prior to the collection of focus group data, transcription, and coding. The broader themes, connections, and disconnections across the two corpora were then examined.

Fairclough (1993; 2013) proposes a three-dimensional conception of discursive practice "as simultaneously (i) a language text, spoken or written, (ii) discourse practice (text production and text interpretation), (iii) sociocultural practice." (Fairclough, 2013, p. 132). This gives rise to a method of analysis moving between the following elements: "linguistic *description* of the language text, interpretation of the relationship between the (productive and interpretive) discursive processes and the text, and explanation of the relationship between the discursive processes and the social processes." (Fairclough, 2013, p. 132).

When analysing at text level, Fairclough (1993) describes four main areas to examine vocabulary, grammar, cohesion and text structure. As the latter applies to larger scale corpus this was omitted from analysis. A linguistic checklist (Fowler et al., 2018) supported the use of Hallidayan theory of linguistics within analysis at text level. The following were most relevant or common concepts drawn on from the checklist: "relexicalization" where meanings of existing words are changed or new terms are created (including slang), "passivization" where the agent within a

sentence is missing, and “grammar of modality” was considered by attending to personal pronouns and verbs in the directiveness of speech.

Analysing at the discourse practice level explores how texts are produced, distributed, and consumed with the context that it occurred (i.e. focus group or Reddit). Here attending to the action components of text, known as “force”, considering what function the text aims to carry out, for example giving advice. Wider context of the extracts is sometimes provided to aid readers understanding of the interpretations made. “Coherence” is attending to the meaningful relations between different parts of the text, irrespective of whether this is made explicit. Interpretation may involve considering ideological links to meaningful relationships between information. A key part of this level of analysis was attending to how historical texts were drawn on within the current text, “intertextuality”. Including how existing discourse were adopted and utilised.

Finally, in level three, ideology and power within the text are considered. Fairclough (2013) describes ideology as “constructions of reality (the physical world, social relations, social identities), which are built into various dimensions of the forms/meanings of discursive practices, and which contribute to the production, reproduction and transformation of relations of domination” (p. 87).

Findings

Three key discourse topics identified are outlined below; the functions of complex addiction, being an “addict” or being “clean” - dualism in addiction, and different perspectives of a “problem”.

The Functions of Complex Addiction Discourse

Multiple perspectives of addiction were shared throughout the text; some people drew on a variety of existing discourses (moral and disease) and theory (biological, psychological, social, self-medication hypothesis etc.) whereas others described a single construct. In addition, implicit and explicit constructions of addiction as external or internal were interwoven within data. Discourse revealed personal and social functions of understanding addiction as a complex phenomenon.

Drawing on multiple causes or understandings of addiction was framed within an "excuse" during a focus group. Although not a common occurrence, it presented critical shifts within the corpus and therefore is of importance. The consequences arising from this construction included minimising complex understandings of addiction, locating the problem within the individual in the form of personal fault, and locating the solution within an individual. The extract below is within the context of a group attendee explaining how working within the music industry with proximity and social acceptance of substances can be a barrier to change.

> A3[1]: …said it's very easy to use excuses. It's down to me to sort that out, you know and you can use all the excuses in the world, it's my job, it's the people around me, it's this, it's that. No it's not, it's me, you know and I need to sort it out so.

At a text level, the participant moves from using passive language "it's very easy to use excuses", and placing themselves as the agent "it's down to me…" before shifting away from personal agency with the use of the pronoun "you" which

[1] Letters differentiate different speakers within the extract, they do not denote specific participants. Numbers indicate different corpora. 1 = Reddit, 2= focus Group 1, 3= focus Group 2.

here seems to refer to anyone. At a discursive level, moving between placing the self as an agent and creating distance may serve to protect the self from the more difficult position of personal fault implicit from their reference to “easy to use excuses”. They dismiss the external explanations, placing themselves as the agent and locating the problem within themselves “no it’s not, it’s me”. The modality is directive towards themselves, assuming responsibility and expressing necessity for change via the verb “need”.

Similarly, in the reddit data a critical shift framed addiction as something to “just stop”, dismissing the complexity of addiction and implying personal fault. The value of addiction as complex was seen as it evoked multiple Redditors to refute this. Understanding addiction as a complex phenomenon may function to challenge or protect against moral judgement from others.

Sharing multiple perspectives of addiction whilst shifting between internal and external language also constructed personal “meaning” within addiction allowing the attendee to take responsibility without blame. The below extract provides an example of this in the context of discussing what addiction is from their own experiences in the focus group.

A2: …me accepting that - you know that I’m just built badly and you know it's not our fault, that we've got these defects. We haven't chosen them, if, you know. If, there was a choice, we wouldn’t take that choice.

B2: That is absolutely right. It's not our fault.

A2: You know, um. - But yeah, you gotta deal with that, but these are the cards you've been dealt. And erm. Yeah life is is that much more difficult than - For normal people. Whatever that means. Erm, that don't have to deal with, this and or aren't susceptible to it. Erm. And. Yeah that's yeah,

> it all comes hand in hand with the admitting of you got a problem and, but you know out of that for me its meaning that, you know, I haven't chosen this, I haven't wanted to do this, you know, it was the best way at the time that i thought i could deal with what I've been, the cards I'd been dealt.

Firstly, at a discursive level, the attendee draws on biological discourse "I'm built badly" and "defects" to explain that "it's not our fault", because these are out of our control "we haven't chosen them". At a text level, they extend their understanding from personal to inclusive by using "our" and "we've" referring to anyone with an addiction. The passive and external position of the biological discourse has not diminished agency within change as the attendee states "but yeah, you gotta deal with that" despite "the cards you've been dealt". Although the biological discourse has extinguished individual fault, it seems also to create a division of groups of "normal people" that are not "dealing with this", and "susceptible people" referring to those with addiction. Prior to this they also highlight the difference that it is "more difficult" for the latter, briefly highlighting inequality and differing levels of privilege between social groups. "Normal" is said tentatively and followed up by "whatever that means". Discursively, this is perhaps an indirect indication of their discomfort at this idea and may serve to implicitly challenge the idea that there is a "normal" to conform to. The attendee states the importance of "meaning" when "admitting of you got a problem", the force as follows is to share their explanation. Expressing that use is not out of desire, "I didn't want to do this", rejecting moral discourse. Describing substance use as a way to cope, positioning the problem and solution as internal. Blame is perhaps mitigated

by expressing that they did their "best" within the external adverse social context of which they had little control "the cards I'd been dealt".

Here framing addiction as a problem for an individual seems more palatable with this "meaning" in the form of multiple complex external understandings with internal responsibility for actions "the best way at the time…i could" and solutions "you gotta deal with that". However, there remains a discomfort at the separating nature of problem talk when biological discourse is drawn on.

Being an "Addict" or Being "Clean" - Dualism in Addiction

Much of the discourse present, assumed that addiction existed and could be defined and categorised. Dichotomous ideas dominated the corpora, with people positioned as either an "addict" someone who uses substance(s) or as "recovered"/ "recovery"/ "recovering" and "clean"/ "sober"/ "drug-free". "Clean" is a relexicalization of the absence or stopping of using a substance or alcohol. In most cases, the word "clean" was used to declare the status of not using drugs. In addition, explicit and implicit recommendations of abstinence within both corpora were present. These features are demonstrated in the extract below, a comment thread from a post made by a Redditor "I'm a recovering drug addict" who described their duration of drug use and being "clean".

A1: I'm a month clean how do you stop yourself the longer you stay clean

B1: Separate yourself from ANYTHING that reminds you of using. Distance is the only way

C1: Stay 6 feet apart from drugs

At a text level, personal responsibility was assumed for being and staying "clean" made clear through the pronouns "you" and "yourself". The force of a question was responded with force of advice from two Redditors. The former

mirrored personal responsibility by using directive language to suggest what they should do by using an imperative verb and “you” pronouns referring to the individual. Both suggest actions of distance, from substances and reminders of substances, with “ANYTHING” capitalised suggesting the importance of it. At a discursive level, this directive declaration, “distance is the only way”, not only advocates for the abstinence approach, but leaves no room for alternative constructions of drug use and/or “recovery”. Addiction is constructed as a problem to be removed or stopped, with individuals as responsible.

Alongside encouragement to recover, declarations of abstinence were often framed as an achievement via praise, perhaps reflecting this as a socially acceptable position within Western culture. The word “clean” is synonymous with uncontaminated and moral, both of which would be deemed acceptable in society. Cleanliness is associated with good health in modern culture and therefore also has an element of safety. Given this, consciously or unconsciously assuming responsibility for being “clean”, “sober” or “drug-free” is perhaps understandable, as it may bring you into a socially accepted and potentially admired position for having overcome difficulty. However, if you are “clean” as someone who does not use substances, this comes with the implicit position that someone who does use substances could be labelled as “dirty”. In contrast, “dirty” has unsafe and less socially accepted associations of contamination and dishonesty. During a focus group, in the context of considering cultural differences in what is socially acceptable, an example of the other side to “clean” is presented.

A3: Complete madness it's funny 'cause if you see someone drunk in the street you think, oh they’ve had a good night or they’ve had a good=

B3: [yeah

A3: =evening. When ya see someone high, you think. Oh, urgh dirty, (inaudible) yeah.=

B3: [Junkie, yeah degenerate yeah exactly yeah yeah yeah.

A3: =I mean. It's exactly the same, there's no difference to me that,=

B3: [Yeah, mm

C3: [no no

A3: =you know it's. It's crazy, I remember being in Amsterdam many many, many years ago and had a very very bad trip, on erm some super skunk. I mean it's laughable now, but if you had seen me and my mate trying to get back to our hotel, having the most weird trip. It was, but if you if you've seen that like like if. Not not in Amsterdam but in - my hometown or London or wherever. People would look at you and go, Oh my God,=

B3: [Yeah

A3: = that's, disgusting.

Here the attendee uses "you" to address people different from the group, implicitly dividing into a group of 'us' and 'others'. The latter appears to be suggestive of the UK public who do not have experience of using substances. This discursive divide may represent the potential social distance the language that follows creates and maintains. They describe others viewing people who are experiencing a high from drugs as "dirty". This is followed up by further negative vocabulary, "junkie", "degenerate" and "disgusting". The first is a derogatory slang term for someone who uses drugs, followed by a term often referring to someone who deviates from normal moral standards. The latter, "disgusting", is slightly removed instead referring to the behaviour rather than an individual.

Participants explicitly highlight their observations of the influence of social context here. In contrast to the perception of "someone high", a person who appears intoxicated by alcohol "drunk" the public perception is "had a good night". The difference of reactions to "someone high" is implicitly referred to through discursive coherence comparing Amsterdam and London. A key difference between the social contexts compared is the legal status of the drug described "skunk". An illegal status of a substance seems to present as a factor relating to negative response from others.

Different Perspectives on a "Problem"

A thread running throughout data is addiction as a problem to be stopped or avoided. This was also evident in praise given to those expressing recovery and abstinence, and words of encouragement towards recovery and abstinence. In addition, talk of "relapse" or "use" was sometimes paired with self-critical statements. At the most extreme addiction was constructed as a permanent problem, and infrequent discourses are outlined including recreational and therapeutic constructions, and the problem located in society.

Firstly, addiction was described as a permanent state and a part of who you are. Different consequences of this discourse included helping people maintain recovery, internalising stigma, and recovery as daunting. In the extract below, the attendee reflected on the potential functions of viewing addiction in this way paired with the label/ identity of "addict". This was in the context of a broader discussion of what the word addiction meant to them. The functions of permanence were more prominent in focus group discussions.

A2: Yeah, I've got a friend, um, who was an addict and he's been clean and sober, for just under 40 years now. But he's still Cla.. he's still classes himself as an addict.

B2: Yeah, that's that's my that's exactly my feeling on that. Yeah.

A2: Yeah, yeah, yeah. Which is kind of. Yes but you're going to think that, but it's not a very kind thing? I suppose that's what keeps you on the straight and narrow, always classing yourself as an addict, erm but it's not kind of being kind to yourself, by, using that word on yourself.

At the text level, the friend is described using identity first vocabulary "addict". Speaker A2 uses the past tense suggesting they are no longer an "addict" and describes them as abstinent: a further example of dichotomous addiction. However, they present their friends view "he still classes himself as an addict" as different to their own having used past tense. The initial speaker then considers the potential function of this "keeping you on the straight and narrow", referring to sobriety as the moral/honest path. Noting discursive coherence, this seemed to be posed as a benefit in the context of previous references assuming all attendees had a shared goal of abstinence. However, they also tentatively question the kindness of directing the word "addict" at yourself twice, in the context of having discussed the judgement, shame and embarrassment that comes with the word addiction. One possible interpretation of the tentativeness is functioning as a less threatening way of introducing a different opinion. Or perhaps it comes from having identified the conflicting positions this discourse creates, and with discomfort as "addict" was a word they employed at the start of the extract. Knowing the study was focusing on language may have led them to this consideration.

Another consequence was highlighted in the other group as permanent constructions were perceived as "It's a fucking scary thought it's, it's a horrible thought". The use of swearing vocabulary emphasising addiction as daunting, and

implicitly recovery as a daunting task, framing this as an important negative function.

The exceptions to addiction as a problem included the use of substances constructed with “recreation” or “therapeutic” descriptions within the Reddit corpus. However, these came with caveats regarding the requirement of control and restricted to certain types of substances or behaviours. In the extract below, there is a discussion between two people sharing their enjoyment of substances and discussing the use of one substance to “cure addiction” to another substance “meth”.

> A1: …i personally enjoy the recreational aspect, i don't think you need to get anything in return, it's like what alcohol and weed is for other people. However there is potential but your intentions have to be strong and you need to focus on it, that being said i think DMT might have even more potential for curing addiction. You could even potentially order mimosa hostilis root bark and syrian rue and make your own pharmahuasca. Best of luck on your recovery, remember... it's not bad to take drugs as long as you stick to the good drugs, and those are also the best most fun drugs, non addictive, non harmful and let's be honest you really dont need anything else than mushrooms, dmt, LSD, occasional MDMA, maybe some psychedelic research chems :)

The element of control comes through with statements about “intentions” and “focus”. They use jargon such as “pharmahuasca” and directive language with imperative verbs and no linguistic distance to themselves from the information, positioning themself as an informer to others or expert. They appear to address a wider audience despite using the word “you”, as the context is public content and from the power of directive language. Starting with “remember…it’s not bad to take

drugs", the ellipsis used here to create suspense by adding a pause draws attention to the clause that follows. This perhaps suggests this is an important message they wish to impart, and to give this different opinion more power. The language is passive when describing the behaviour of taking drugs, positioning drugs as addictive entities and people as passive recipients of their effects. A possible function may be an attempt to remove blame associated with those who use psychedelic drugs: responsibility is still there "as long as you stick to the good drugs". In reflecting on the function of this, the author is commanding people to think that it is not "bad" to use these particular (illegal) substances. However, in doing so they uphold the notion that using some substances is immoral.

As has been seen in examples so far, the problem can be located internally or externally with differing functions, and the solution has been predominantly located as internal**.** There were a few exceptions where wider societal issues were more central within both corpora. During both focus groups, the topic of advertising objects of addiction was raised, highlighting the lack of social responsibility and/or irresponsibility within various industries. Including brief mentions of the government's role with references to "more regulations" or "that's a whole other discussion". The below example evolved from discussions about advertising.

A2: Yeah and we'll we'll put drink awareness in small writing at the=

B2: [yes ((laughter))

A2: =bottom. But we'll still take your money and it will make. – Millions=

C2: [yes

A2: =and millions of pounds in profit a year, so - we're okay, Jack.

C2: Yeah, we've covered ourselves, we've told you to be careful. So the fact now that you can go and destroy yourself. Is is another matter.

At a text level, attendees' use "we" to speak from the perspective of the alcohol industry. Discursively, the drink awareness information described "in small writing at the bottom" seems to draw attention to the implicit message that it is the lesser important information to the industry. Their perception of the industry's greed is explicitly stated "but we'll take your money" and implicit reference is made to the disregard for others "we're okay". Another attendee echoes this tone and explicitly suggests how the drink awareness message may function to protect companies - "we're covered" and absolve themselves from responsibility or fault for any resulting harm. In using this statement, "we've told you to be careful", it places the responsibility back on individual consumers.

Discussion

This study explored the construction of addiction through critical discourse analysis of corpora derived from focus groups and the online forum Reddit.

In the first discourse topic, multiple understandings of addiction and movement between active and passive positions could be employed by people with addictions to help make sense of their experiences, take responsibility for their actions and recovery, and cope with blame from self or others. The utility of drawing on a diverse range of discourse in constructing addiction has been observed in existing qualitative studies (Hammer et al., 2012; Meurk et al., 2016). Both studies reflected on the value of complex and divergent understandings of experience and how this may more accurately reflect the experience of addiction, as opposed to a single theory (Meurk et al., 2016) or unified framework (Hammer et al., 2012). However, the current study also found when multiple external explanations were dismissed as "excuses" or reduced to "just stop", consistent with more moral

constructions, addiction was located as an exclusively internal problem. Such negative judgements could result in internalised stigma, which has been associated with increased mental health symptom severity and reduced self-esteem, hope, self-efficacy, quality of life, social support, empowerment, adherence to treatment (Livingston & Boyd, 2010). However, in the findings of this study, it also consequently located the solution internally which can evoke agency, documented as an important positive influence in recovery (Pearce & Pickard, 2010). This further highlights the important role of moving between external and internal language and the consequences this can have in constructing responsibility without blame.

Dualistic constructed subjective positions of abstinence or "addicted", in the second discourse topic, positioned addiction as a problem to be stopped with little room for alternatives. This is consistent with recent findings suggesting that abstinence remains a dominant discourse of addiction amongst professionals and people who use substances, even within harm reduction programmes (Brown & Stewart, 2021). Although dualisms were not exclusive to use of substances within the corpora, as it also presented in relation to pornography and gambling.

From the third discourse topic, the notion of a permanent problem positioned addiction and recovery as daunting, functioned to help people maintain sobriety (seen as the moral path), and fuelled internalised stigma. Permanence appears within 12 steps treatments, "…and to practice these principles in all affairs" (Alcoholics Anonymous World Services, 1982, p. 106) and may explain perceived helpful function of maintaining sobriety within the findings. However, discourse analysis of documentation from this approach suggested unhelpful consequences may arise from subsuming descriptions of "damaged", "helpless", and "without free-will" into the "addict" identity (Jordan, 2015), which are consistent with other functions

illuminated in the findings positioning permanence as daunting and stigmatising. Similarly, biological-based explanations of mental health diagnosis including addiction have been associated with higher levels of prognostic pessimism (Kvaale et al., 2013), thought to be related to ideas of disease as being "fixed" (Haslam, 2011). Furthermore, pathologising discourse of addiction have been associated with stigmatizing consequences (Pienaar et al., 2015; Savic et al., 2017).

In considering power imbalances and ideological positions, the current dominant neoliberal ideology influence appears throughout the discourse topics. Neoliberalism is currently known as a policy model advocating the move of economic control from public to private sectors and believing that continued economic growth is beneficial for human progress. Brown (2006) describes "market rationality" whereby we judge what is deemed acceptable or beneficial by the current market. Currently, success and happiness are connected to social standing and material wealth and, in this market, mental health becomes "encapsulated within biomedical dualisms associated with happiness/unhappiness, sanity/insanity and the corresponding mental disorders or diseases…identified as universal and acontextual" (Esposito & Perez, 2014, p. 431). This individual focus has been seen throughout the corpora, within constructions of addiction as a problem and the frequent positioning of recovery as internal to the individual. Highlighting wider societal factors in our understanding of addiction and how social context influences others' perception of it, may help to challenge this power. Examples of this in the findings include the cultural context discussed in the second discourse topic and corporate redirection of responsibility highlighted in discourse topic three. However, wider societal influence being dismissed as "excuses" serves the neoliberal ideal. Discourse minimising the societal influence, and blaming and stigmatising individuals, has been considered as

a way of preventing the uncomfortable awareness of concerning aspects of society or collective responsibility (Pickard, 2017).

When exceptions to pathologising addiction arose in the third discourse topic, constructions of drugs for "recreation" or "therapeutic use" came with caveats of individual responsibility and moderation within a bid to inform others that using drugs is not "bad". Room (2011) describes personal responsibility as the solution to the incompatible neoliberal ideologies; availability of alcohol in the free market and the sobriety or moderation required to maintain ideals of roles and social order. Furthermore, Hammersley and Reid (2002) describe how the loss of control is potentially frightening, contributing to the perception of drugs as dangerous. A possible interpretation is that the caveats functioned to mitigate existing negative societal views of illegal drug taking by framing an illegal substance as fitting in with current neoliberal ideals. This resulted in continued use of abstinent and moral discourse, maintaining pathology of certain drugs in the process of minimising that of others. Moral discourse in the second discourse topic also presented increased negative associations with those who use illegal substances. The decriminalization of drugs has been hypothesised to reduce stigma (Wogen & Restrepo, 2020). However, a literature review highlighted the dearth of research on this subject, recommending future exploration into the broader impacts of decriminalising addiction, including stigma (Scheim et al., 2020).

Commonly used vocabulary, namely "clean" and "dirty", biological discourse, and addiction as a problem with labels of "addict" was seen to create or maintain negative views of people who use substances and distance between those who use drugs and those who do not across all discourse topics. At a discursive level, references to an ingroup and/ or outgroup also served to maintain categorical

groups, consistent with a social psychological perspective (Hogg & Vaughan, 2005). The word “addict” and identity first language were used predominantly in focus groups, and often on Reddit, most exceptions were people identifying as professionals. Exploration into explicit and implicit bias had found terms such as “addict” used within the field of addiction elicit negative responses from health professionals, individuals in recovery and general public (Ashford, Brown, McDaniel, et al., 2019; Ashford et al., 2018). In this study the word “dirty” was paired with “disgust” and other derogatory terms. This is consistent with evolutionary theory linking contamination and morality with the emotion disgust, leading to avoidance or rejection as a protective strategy (Rozin et al., 2008). This language therefore could create and maintain social distance between society and people who use substances and perpetuate stigmatising constructs. In existing literature, professionals have also described concerns over the language “clean” and “dirty” (Kelly et al., 2015). Whilst family members listed “clean/dirty” in their top 10 negative/stigmatising words, professionals and people in recovery did not (Ashford, Brown, & Curtis, 2019). This may be reflective of the exception found within the study, whereby retaining the “addict” identity was viewed as helpful in maintaining sobriety by someone with an addiction. This highlights how discourse can be employed differently by individuals for varied purposes.

The findings outlined how the different data sources contributed to the discourse topics and consideration has been given to the differences noted. Although multiple understandings and shifting between internal and external language were present in Reddit data, the function to construct meaning without blame was not part of the findings. This may be partly explained as it often occurred in posts where the dominant force was providing information for others to ask questions about, when

this came from professionals it seemed part of self-promotion. In addition, service discourse may have allowed this topic and addiction as a permanent problem to emerge from the focus group discussions. Demand characteristics, or social desirability bias may be potential explanations for recreational and therapeutic discourse being absent in focus group data or the result of group composition.

Limitations

Conclusions and subsequent implications drawn from this study should be critically considered within the context of the methodology and its limitations. Whilst credibility was enhanced through triangulation, prolonged engagement and involving participants in feedback and analysis would have enhanced the quality of this project.

This article aimed to provide a detailed description of the process allowing others to consider the transferability of findings to other contexts. Of note, the Reddit corpus highlights the voice of those who use it and what is passively consumed. However, those not represented include those without internet access, approximately 40% of the world (Kemp, 2020). The focus groups took place in one service, and as such will be influenced by the discourse used within the service. Participants were all deemed to be in a stable position, despite potentially self-identifying at differing stages of recovery, and this should be considered as part of the context in which the results are interpreted. Online focus groups were limited to two, one of which did not meet the recommended size of between four and six participants (Lobe, 2017) due to dropout. This may have resulted in limited diversity, which is seen within reduced variation of self-reported age and ethnicity, and the absence of gender minorities. Although the mean age of participants is broadly in line with UK adult treatment for substance use population statistics (Public Health England's National Drug

Treatment Monitoring System, 2020), it is 8.25 years above the mean which may reflect that a stable position comes with longer duration of treatment. Finally, from the sampling procedures employed, addictions relating to substance use were most represented in the corpora. Although similarities were found across addiction type, more material including other types of addiction would better uncover any differences or similarities.

CDA is often considered a craft developed over time (Potter, 1998), and it is the second project utilizing this method of analysis for the first author. They identify as a white female from a working-class background, without religious beliefs. During the project they were employed as a Trainee Clinical Psychologist and have worked in a clinical capacity within the NHS for 10 years. The interpretations made will have been through the lens of their experience, and a diary was kept aiding the reflexive process. An example of clinical work influence includes highlighting the shifts between internalising and externalising the problem within the analysis.

Potential Implications

Consistent with other studies (Hammer et al. 2012; Meurk et al. 2016), the findings suggest instead of seeking a fixed model, fostering complexity within individual understandings of addiction may be most helpful. In addition, moving flexibly between both internal and external positions of addiction may help achieve responsibility without blame. This overlaps with the process of co-constructing personal meaning by drawing on a wide range of causal factors and theory, known as formulation, that has become a central part of a psychologists work in the UK (Johnstone & Dallos, 2014). Amongst other findings, it has been shown to reduce individual blame and blame from others, namely carers and teams (Division of Clinical Psychology, 2011). Whilst wider ecological systems may be incorporated in

formulation, it can be argued that the focus for change often largely remains on the individual and occasionally involves or focuses on the microsystem (e.g. family, partner, school class or teams) around the individual.

As discourse promoting neoliberal ideology diminishes the focus on societal intervention, increasing attention and action to wider ecological systems is key. Research highlights social problems associated with addiction such as multiple adverse childhood experiences (Choi et al., 2017; Shin et al., 2018) and inequality itself (Pickett & Wilkinson, 2010). Within psychology there are approaches and various groups with a focus of oppression and societal change such as community and liberation psychology and psychologists for social change. Another focus for macro level interventions, could involve sharing a complex understanding of addiction to reduce stigma. In the United Kingdom, an existing mental health anti-stigma campaign includes people with lived experience sharing their stories (Time to Change, n.d.). Specific to addiction, research by Pienaar at al. (2015) resulted in a website detailing complex and varied personal stories of addiction, which was found to reduce stigma and encourage more holistic understandings (Treloar et al., 2019). However, within this study, focus group attendees commented on their understandable reluctance to share information with others who do not have experience of addiction, and it is important to note experiences and resulting criticism from those who have shared their mental health story. During an event "Recovering our stories" (Costa et al., 2012), authors raised concerns of this strategy not always being used as intended, to challenge power and oppression, and shared advice to support individuals to make an informed decision. Highlighting important considerations to take when considering how best to share complex understandings of addiction across wider ecological systems.

Although formulation offers an alternative to psychiatric diagnosis, clinical psychology in the UK functions within the NHS where mental distress is classified by psychiatric diagnosis. The Division of Clinical Psychology (2013) published a position statement outlining the limitations of such classification and the need for a paradigm shift towards a conceptual system that is not based on a 'disease model'. Subsequently, the Power Threat Meaning Framework (PTMF; L. Johnstone & Boyle, 2018) expands on such existing methods, extending an alternative to psychiatric classification, "…to support the construction of non-diagnostic, non-blaming, de-mystifying stories about strength and survival, which reintegrate many behaviours and reactions currently diagnosed as symptoms of mental disorder back into the range of universal human experience." (p. 5). The PTMF proposes that humans are active agents but face limitations and barriers impacting the ability to change. Limitations may be material (e.g. financial), biological (e.g. physical disability), psychological (e.g. anxiety) and social (e.g. discrimination). In addition, it acknowledges influence that wider society can unconsciously have on transforming such limitations into damaging meanings, values, beliefs, norms and expectations. As this framework is in its infancy, research encompassing it is currently limited. This is not to say that psychiatric diagnosis is always experienced as negative, a review revealed that individuals report both positive and negative experiences and findings suggest this process is dynamic with many factors involved (Perkins et al., 2018).

The findings showed how individuals may view and use language differently, and further consideration of the language used around addiction is warranted. Limited evidence with specific suggestions about unhelpful language were outlined in the discussion, however adhering to this seemed more evident in professional

discourse than people with addictions. Therefore, these discussions should not be limited to professionals. Although not a novel suggestion, including people who have addictions in agreeing the most helpful vocabulary within individual sessions, teams, and policy would be beneficial. Critically considering the consequences of word use will be important within this. A recent example of this is a glossary outlining contested terms developed by the Scottish Drugs Forum (2020). Discussing language within our own microsystems, and wider macrosystems, such as journals that address language use within guidelines of research, is also imperative.

Conclusions

This study adds to existing research on the potential consequences of holding different understandings of addiction and considers how power may be operating within dominant discourse. Three discourse topics were interwoven within two contrasting corpora: the functions of complex addiction, being an “addict” or being “clean” - dualism in addiction, and different perspectives of a problem. Findings should be considered within the context of the methodology and study limitations. Discourse of addiction as a problem was situated within neoliberal ideology with a focus of responsibility on the individual, reducing the focus on societal factors. Future research and expanding clinical work for societal change will be important, but the authors recognise the barriers to funding within a society predominantly focussed on individuals within healthcare. The findings support previous research advocating for the use of multiple individualised complex understandings of addiction, and future research could examine the utility of sharing this at wider systems levels. At an individual level, clinical psychology makes use of formulation incorporating these ideas, however it is important to include wider ecological

systems within this to prevent overfocusing on the individual. The PTMF offers an alternative to the diagnostic systems that maintain an individual problem focus. Further research of this framework within the field of addiction is needed to understand its function. Finally, people with experience of addiction should be included in discussion about specific vocabulary (and indeed research, service, and policy development); where individualised conversations are not possible a consensus could be reached on least unhelpful wordings to disseminate across ecological systems.

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The authors declare that there is no conflict of interest

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Chapter 5: Extended Methodology

Systematic review

Full search terms can be found in Appendix D. A detailed table of the risk of bias is in Appendix E.

Empirical paper

Ethical Considerations

Focus Groups

Ethical approval (Appendix F) was gained from the Health Research Authority (HRA) and Health and Care Research Wales (HCRW) to recruit NHS participants to this study from a service provider in South East England. A subsequent amendment was approved by HRA and HCRW (Appendix G). This included a contact-free protocol, and additional non-NHS recruitment sites in East Anglia with a service provider funded by the local authority.

Participant and Researcher Safety. A management plan was in place to safeguard participants if information indicating a significant risk of harm to self or others were disclosed. This adhered to the policies, rules and procedures of the service. If necessary, the service's risk and safeguarding protocol would have been followed, however no such events occurred. In addition, professionals at the service carried out suitability checks to decrease the possibility of potential risk issues arising. There was no lone working as a contact-free protocol was employed due to COVID-19. To ensure researcher and participant safety, the focus groups were conducted with a minimum of two facilitators present.

Confidentiality. Participant confidentiality was preserved throughout the study, and no event of concern where it would need to be broken occurred.

The Data Protection Act (2018) was followed, ensuring that any data obtained were used fairly and stored securely. Data were anonymised by assigning codes to participants, which were used instead of their name. Due to the remote protocol and COVID-19 restrictions, data were primarily electronic, and stored securely on the University of East Anglia (UEA) cloud. Identifiable data that reveals the identity of participants, such as full names on consent forms, was only recorded where necessary, and kept in password protected files stored separately to the anonymised data. Identifiable information is kept at UEA the for the duration of the study and anonymised data is kept for 10 years before being destroyed.

Online Data

The British Psychological Society (2017) ethical guidelines for internet-mediated research were consulted regarding the online forum data used in this study. Reddit is an open online discussion forum where all posts made are in full view to the public unless or until removed by themselves or Reddit. In keeping with the Code of Human Research Ethics (British Psychological Society, 2014), this data can be classified as retrieved from a public situation as those posting "would expect to be observed by strangers." (p. 23).

Quality and Rigor

Ensuring methodology is rigorous and of good quality is important within all types of research. Ideas of transferability, reflexivity and credibility are suggested criteria for assessing the quality of qualitative methods by Lincoln and Guba (1985, as cited in Korstjens & Moser, 2018). Korstjens & Moser (2018) discuss ways of addressing these, some of which have been applied in this study. This project contains contextual information or "thick" descriptions, such as of the research process, allowing others to consider the findings' transferability to other contexts.

Transparency ensures dependability of the data by being explicit and open about the methodology and procedures. An important part of qualitative research is critically reflecting on the self and how this may impact and shape research (Lincoln et al., 2018). Although this process is often ambiguous, Lazard and McAvoy (2020) suggest, ”reflexivity requires the unpacking of partial, positioned and affective perspectives we bring to research.” (p. 159). To facilitate this, reflections were recorded throughout the process of the study, and Chapter 7 considers important themes from this process. In addition, supervision provided opportunities to discuss and unpack reflections further. Credibility is the extent to which findings seem to likely represent information drawn from the data, and this can be enhanced through collection of data across different contexts.. In this study, two sources of data were analysed to add breadth and depth to the research project by data triangulation. Firstly, material was extracted from the online discussion forum Reddit. Secondly, focus groups were conducted with individuals recruited from a service working alongside people who use substances. Focus groups can uncover a range of perspectives and experiences around the specific topic from a specific in-group view (those who use substances). They also capture discussion that is less influenced by researchers compared to interviews. However, as the discussion remains in a purposeful, formal context it may not be considered naturally occurring (Taylor, 2001). Online discussion forums provide a range of perspectives through virtual interaction, illuminating the use of language that circulates in a wider group of society. They also offer the advantage of no direct researcher involvement or influence within this. Although online forums provide the interactional element, there is a contrast between the nature of interaction in the two sources due to their differing contexts.

Focus Groups

Changes to Recruitment Strategy

The initial intention was to recruit face-to-face focus groups from existing therapy groups to increase comfort for participants and reduce burden on staff and participants. Due to the COVID-19 pandemic, the contact-free protocol was used. During the initial site visit, the recruitment method was adapted to suit the service needs, therefore the principal investigator within the service made the initial approach to participants from their caseload.

Additional Procedure Information

Participants had the option to join the online focus group with a pseudonym and with or without their video camera on. After attending the focus group, participants were offered a £10 Love2shop voucher to thank them for their participation.

Due to time constraints, it was only feasible to recruit two groups. Participants were recruited from the NHS service as the required approval and documentation was in place before non-NHS sites.

Reddit

Everyday millions of people post, vote and comment within Reddit online communities. It is ranked the 19th most visited site globally and the third most visited site in the United Kingdom, according to Alexa (n.d.). The subreddit r/IAmA has 20.6 million members (*IAmA: Posts*, n.d.) and r/AMA has 601,000 members (*Ask Me Anything*, n.d.). Anyone with access to the internet can view Reddit content. However, an account is needed to become an active member of communities, post, comment, and “upvote” or “downvote” other user posts or comments.

All subreddits are moderated, ensuring posts adhere to the community rules. As such, comments or posts can be removed by moderators. Understandably, both of the subreddit forums used do not tolerate hatred or abuse. Subsequently, the data extracted is likely not to include content of this kind, however that is not to say this does not exist. Both subreddits have different terms of use and rules (Appendix H & I). Of note, r/IAmA ban unprovable and common topics (*IAmA: FAQ and Wiki*, n.d.); this includes stories about addiction and psychiatric disorders, whereas people can post without providing proof on r/AMA (*Ask Me Anything*, n.d.).

Although formal advertisements were excluded, in the r/IAmA community posts often include self-promotion. Of note, extracted posts from professionals may be partially motivated by marketing. Reddit place a cap on the frequency that you can make posts, to prevent spamming, and individual subreddits may have respective additional rules in place to further prevent this.

As referred to above, members of Reddit can upvote and downvote posts and comments. Despite some subreddits having rules, it is difficult to make assumptions about the reasons people upvote or downvote a post or comment. There is no legitimate way to cheat being upvoted and therefore more widely seen. However, moderators can pin posts or create stickied comments which keeps them at the top of the list as opposed to being voted to the top by the wider community. Given this, they became part of the exclusion criteria to avoid bias.

Sampling Procedure

The sampling strategy was purposeful with the aim of including maximum variation of perspectives and experiences across data. Extracted posts covered the following self-identified perspectives; person with a current addiction, person recovering from an addiction, person with a recovered addiction, professional

working in the field of addiction (clinical, and research), family members (partner, sibling, parent, and child) and a friend of someone with an addiction. Posts were also selected to cover different types of addiction according to DSM-5 (APA, 2013) and ICD-11 (WHO, 2019); substances (covering; depressants, stimulants, hallucinogens and opioids), gambling and gaming. As cannabis does not fit within these discrete substance groups, a decision was taken to include it separately as an additional substance type.

Demographic information was not part of the sampling procedure as disclosure within posts is variable. However, to provide an overview of the diversity of the extracted data sample, information pertaining to background, perspective, type of addiction was recorded.

Relevant posts within the subreddit were found via the search function using the word “addiction”. Results were filtered by “top” posts, which are those having received the most upvotes, subsequently they appear at the top of the results page and are therefore viewed more. The search was also filtered to show posts in the “last year”. This was selected to capture more recent posts, whilst yielding enough results to sample a meaningful amount of data.

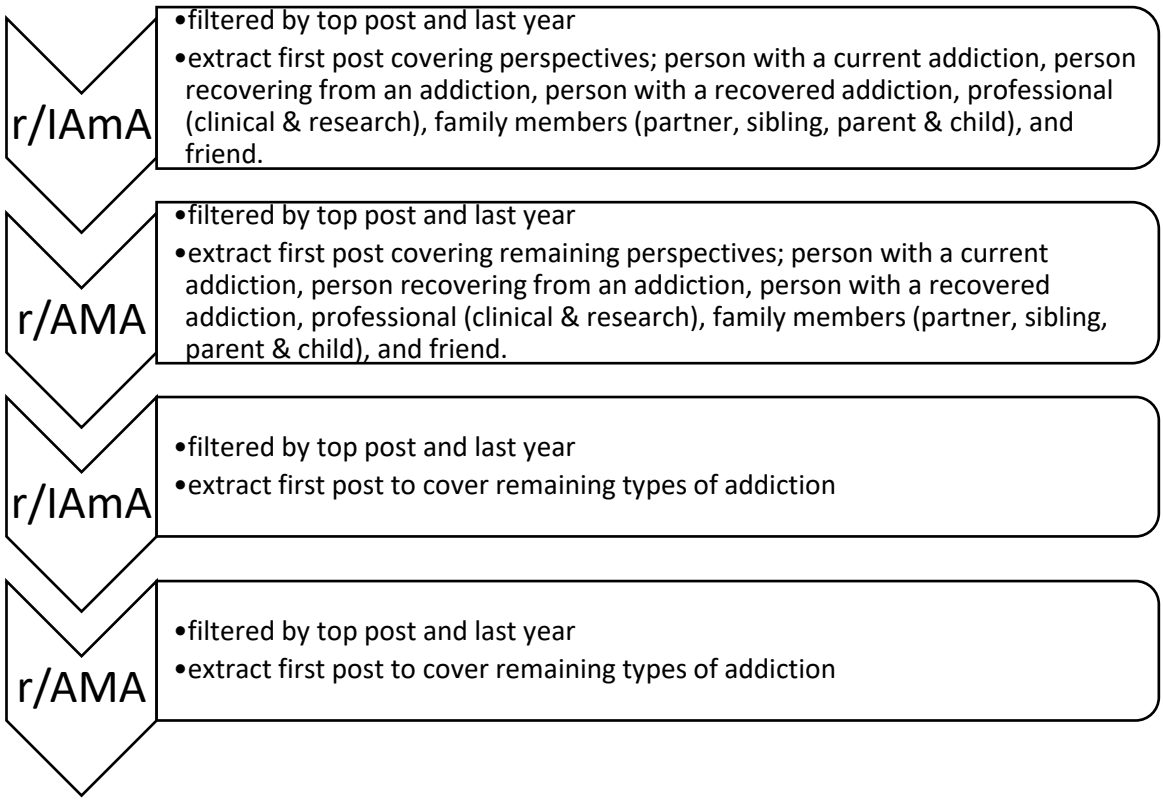
The subreddit with the most members and therefore the most viewed, r/IAmA, was searched first. The search function was used as stated above, and the first post found to cover each perspective was extracted. This was repeated in r/AMA to cover remaining perspectives. This process was then repeated, this time extracting posts covering the remaining types of addiction. Figure 1 provides a summary of this process.

Once posts were selected, the comments were filtered by “controversial”, with the most upvotes and downvotes combined. The first relevant comment thread,

in accordance with the inclusion and exclusion criteria, was extracted from each post. Data extraction continued until saturation. Extracted data were anonymised and no potentially identifying quotations were reproduced within the article or thesis.

Figure 1

Summary of post extraction procedure



Demographic Information Extracted from Reddit Corpus.

Ethnicity was not reported within corpus. Furthermore, few Redditors disclosed their locality, gender, qualification or home status, treatment or service use, and other diagnoses (Appendix J).

Analysis

Systems outlined by Atkinson and Heritage (1985) were employed in the transcription process (sample extract, Appendix K).

Chapter 6: Discussion and Critical Evaluation

The aim of this thesis was to explore the consequences of holding different understandings of addiction. Within this overarching topic, two articles of differing epistemological approaches have been presented (Chapter 2 and 4). This section attempts to draw together both, providing a combined summary, discussion, and critical evaluation of the thesis.

Summary of Findings

A systematic review examining associations between biological-based explanations of addiction and stigma was conducted. The literature search found 12 eligible studies, nine of which employed a cross-sectional design, one mixed methods study also utilised a cross-sectional design, and two used a between-groups design. From the meta-analysis, conclusions were unable to be confident in suggesting an association between biological-based explanations of addiction and social distance, which was taken as a measure of stigma. In addition, narrative synthesis described mixed findings and high heterogeneity across all eligible studies.

Given the challenges and clear limitations of using solely quantitative methods to further our understanding of complex concepts, the empirical study explored how socially constructed knowledge of addiction was employed in discursive practice, with consideration to the operation of power, via critical discourse analysis. Three key discourse topics were identified: the functions of complex addiction, being an “addict” or being “clean - dualism in addiction, and different perspectives of a “problem”.

Combined Discussion

Across this thesis, complex concepts have been explored. Firstly, addiction has been critiqued for varied theories and terminology surrounding it (Larsen et al., 2013; West et al., 2019). As discussed in Chapter 2, operationalising a perceived cause of addiction may not reflect lay views, which are likely more complex. Similarly, in practice, clinicians will likely draw on multiple theories or concepts based on their training and personal background, as demonstrated in a systematic review of research on addiction service providers' perspectives (Barnett et al., 2018). Secondly, critique of the concept of stigma has led to suggestions of the need for increased clarity (Manzo, 2004), inclusion of intersectional stigma (Turan et al., 2019) and stigma from a macro level (Fox et al., 2018). The systematic review highlighted the potential problems of using solely quantitative methods to research complex constructs, "quantitative analysis goes haywire when it tries to shortcut the qualitative foundations of such research – it then ends up counting the wrong kinds of things in its attempts to answer the question it is asking." (Erickson, 2018, p. 87). Within the data from the empirical paper, various single, and combinations of, theory and discourse were drawn on in personal understandings of addiction, consistent with other qualitative research (Hammer et al., 2012; Meurk et al., 2016). This may further reflect the proposed limitations of using quantitative methodology in the systematic review to explore such complex and individualised concepts.

Within the studies of this thesis, understandings were considered in different ways. Eligible studies from the systematic review, attempted to explore the effects of taking a biological-based position as a standalone understanding of addiction. The statistical synthesis of these studies found no clear relationship with stigma, using social distance as a measure. Conversely within the empirical study, findings showed

biological discourse was drawn on to reduce individual blame for having an addiction. However, it also constructed people with addiction as different to "normal" people, potentially creating and/ or maintaining a division of social groups positioning those who have addictions as less privileged.

Moral explanations of addiction were present in the narrative synthesis of the review as two studies developed a scale with biological based explanations at one end and moral at the other. Both studies had significant negative associations between biological explanations and increased stigma, suggesting a relationship with moral explanations and increased stigma. Similarly, within the empirical study, identified vocabulary of "clean" and "dirty" appeared to be situated within moral discourse. "Clean" was used to declare a status of sobriety and received praise, consequently positioning people who used substances as "dirty" with connotations of disgust. From an evolutionary perspective, disgust creates distance and constructs different groups, with the latter holding a less socially accepted and marginalised position.

Addiction was framed as a problem throughout the data, situated in neoliberal ideology predominantly focusing on the individual. As discussed, diagnostic criteria may reinforce ideas of problems being located within, and interventions being provided by external others, consistent with the medical model. Similarly, the systematic review and eligible studies within it operationalised addiction using diagnostic criteria, and/or by labelling with words such as "drug addiction" or "alcohol abuse". In addition, although stigma measures in eligible studies sometimes incorporated wider ecology via public stigma, structural stigma was absent. Although the concern was borne from the impact at a macro level, it is worth noting at the micro level a systematic review found that a variety of factors may influence a

person's experience of diagnosis and this may be experienced and has been described in positive and negative ways (Perkins et al., 2018).

Critical Evaluation

Whilst specific study limitations have been outlined in the respective article chapters, further evaluation of the project is detailed below.

Covid-19 Impact

The thesis took place during a global pandemic, Covid-19. Subsequent challenges included the inability to recruit face-to-face, and needing to make amendments to the design accordingly, resulting in delays to the thesis timeline.

In terms of methodological considerations, focus groups were conducted online which had both strengths and limitations. First and foremost, it allowed for the continued involvement of people with experience of addictions. There is some evidence that richness of data from online audiovisual groups is comparable to face-to-face groups (Abrams et al., 2015), and such approaches have the potential to increase self-disclosure but this may be reduced during use of videoconferencing (Joinson, 2001). Anecdotally, most attendees signed in with their first name only, a few used pseudonyms, and several chose to join with their camera off as they thought this would increase their comfort. The online element may have increased participation rates due to practical advantages alongside changes in employment circumstances for many due to Covid-19. However, reflecting on the practicalities of running groups for data collection, challenges included minor technology glitches making it difficult to hear one participant on a few occasions. Non-verbal cues were not accessible for those who had their video off, and further seemed reduced in comparison to face-to-face discussion. Reflecting on this, I found it impacted group

facilitation and later the analysis process. Finally, delays led to halting recruitment after only two focus groups. Although data collected indicated that saturation had been reached, continuing to recruit further groups and from multiple sites would have enhanced the diversity of attendees and may have revealed the influence of service provider discourse.

It is also important to consider how Covid-19 adds to the context, having significantly impacted day-to-day living for all participants. Furthermore, preliminary conclusions from research and anecdotal reports suggest Covid-19 has likely exacerbated factors involved in the maintenance and deterioration of addictions (Marsden et al., 2020). Interestingly, Covid-19 rarely came up in the focus group discussions. Aside from casual conversation, attendees commented on how it may have increased activity that are typically associated with addiction such as gambling, gaming, online shopping. Similarly, it was rarely referred to within the online data extracted, which included posts made both prior and during the pandemic. No studies included within the systematic review were conducted during the pandemic.

Differing Epistemological Approaches.

Across the project two epistemological positions informed the approach. The systematic review came from a primarily positivist standpoint, synthesising quantitative studies. Conversely, the empirical paper employed a critical realist position, considering addiction to be a socially constructed phenomenon analysed via qualitative methodology. The approaches are suited to different questions and both have their own strengths and limitations.

As detailed previously, Critical discourse analysis (CDA) afforded the exploration of how knowledge is constructed through discursive practice whilst also

attending to ideology and power imbalance. Criticisms of the methodology of CDA include a dearth of texts on how it is conducted, Harper and colleagues (2008) discussed how this contributes to difficulties for students learning the approach. As referred to in Chapter 4, although this is the second CDA project I have completed, this is the first time utilising Fairclough's approach. Often critical discourse analysts draw on a variety of methodology in analysis, however with little prior experience, focusing on one felt more containing.

Systematic reviews are useful in drawing together a large body of research to provide an overview of the area of interest and inform future research, as demonstrated in Chapter 2. Whilst meta-analysis offers an objective approach, subjectivity within narrative synthesis can be a limitation, as such guidelines developed to improve the quality of narrative approaches (Popay et al., 2006) were used to guide the review. The systematic review was limited by the quality of studies within it, reducing confidence in the resulting findings.

Implications

The empirical findings outline a few of many representations of discourse around the topic of addiction. This could be developed in the future by recruiting from different populations and services, and by incorporating an analysis of policy. In addition, enhanced involvement from people who have addictions would increase quality by verification strategies such as member checking of interpretations arising from analysis (Morse, 2018). Furthermore, it can work towards redressing the inherent power imbalance between researcher and the researched. A systematic review (Brett et al., 2014) highlighted challenges of how "tokenistic nature of users' involvement can cause power struggles" (p.644), and the importance of training and

having clear roles that are “equal but different” (p.645). Increasing involvement from the public including people with experience of services are part of development plans outlined by the government in mental health research (Department of Health, 2017), and funding bodies (Hickley et al., 2021). Alternative methodology such as participatory action research, may be beneficial for creating and understanding change whilst empowering local communities. However, recognising the value of utilising a range of methodologies, and the ‘heirarchy of evidence’ typically favoring quantitative methodologies such as randomised controlled trials, “co-production” in research and policy is another way of helping to empower and include the public in shaping processes with power and influence. In the systematic review, ontologies were a suggested solution to the lack of conceptual clarity across the interdisciplinary field of addiction. Ontologies are further indicated, as they organise multiple understandings from differing epistemological approaches, retaining complexity supported by the empirical study findings, and incorporating research from different epistemological standpoints (Hastings et al., 2020).

Covid-19 has disproportionately affected people from lower income families, the likely long-term impact will result in higher levels of adults and families living poverty (Whitehead et al., 2021). In addition, studies are beginning to show an increase in adverse childhood experiences during the pandemic (Calvano et al., 2021). These social factors have been associated with addiction, whilst individual interventions are valuable, suggested implications of increased attendance to societal level research and change will be an important future direction.

Conclusion

This thesis explored different understandings of addiction, and how social knowledge of this topic is employed in discursive practice by different stakeholders within dominant sociocultural practice. The findings from this thesis should be considered within the context of the methodology and limitations, thus tentative conclusions are drawn. Complex understandings of addiction and movement between active and passive positions could be employed by people with addictions to help make sense of their experiences, take responsibility for their actions and recovery, and cope with blame from self or others. Discourses were situated in neoliberal ideology, where focus lies on the individual, leaving potentially important societal influences in the shadows. In addition, findings highlighted differing consequences for vocabulary used. Further research should focus on wider ecological systems in the field of addiction and understanding alternatives to the diagnostic/medical paradigm in mental health. Implications for practice include ensuring wider ecology is considered within individual formulation and considering language use with individuals who have addiction, to inform a consensus of the least harmful ways of talking about addiction.

Chapter 7: Reflections

Topic Influences and an Influencing Topic

Addiction as a topic provided an opportunity to learn about a subject of interest that I was unlikely to have a placement in. During the research, a participant interested in my motivation directly asked if this was because someone close to me had an addiction. I found myself feeling taken aback and chose not to disclose information around this as it does not feel like a primary motivation. It feels more connected to my overarching interest in working with marginalised groups. This likely influenced my choices throughout such as the focus on stigma and an empirical study utilising a critical approach attending to power differences.

The empirical study uses methodology focusing on language. Personal interest perhaps stems from my own experiences of the powerful impact language can have as someone with dyslexia. For example, it can feel alienating when complex, specific vocabulary is used, which has been magnified since becoming a trainee clinical psychologist. Using technical words in this thesis has come with discomfort. Whilst I understand it can keep writing more concise, I would not want to exclude others.

Personal views on language came through in the first group where discomfort at the word “excuse” led me to justify why I used that word and encourage the group to consider if there was an alternative, “I guess I used the word excuse 'cause that's, that's what you said [attendee name]. I don't know if there's, there's a different word for it?”. I also wonder if the balance of analysis was tipped towards a textual level because of vocabulary being something I find myself focusing on, particularly in clinical work.

During the process of this project, I have found myself increasingly focusing on power within relationships and systems. Although I see this as an essential and valuable skill, I have found it comes with guilt when reflecting on the systems I am a part of. Noticing how my own actions might maintain constructions of pathology and individualism within mental health. With societal change often feeling out of reach, I can see how comforting it might be to focus on the individual level. I hope to continue to develop critical psychology skills and take this forward into qualified life.

Reflections on the Methodological Process

The use of supervision to reflect and learn throughout the research process was a key source of support and development. With high volumes of text to analyse, it was easy to feel lost in the process of shifting focus between detail and the bigger picture. Supervision was a helpful space for normalising my experience, and suggestions of mind mapping and memos were helpful practical steps to aide progression. Having conducted the focus groups with supervisors co-facilitating, it was helpful to share initial reflections. I noticed my tendency to want to be sensitive to the data from focus group participants, which may have impacted the analysis and presentation of findings. Considering interpretations from multiple perspectives was a helpful reminder of the importance of reflexivity and acknowledging what parts of myself influenced the choices and interpretations made.

Challenges included separating out discourse topics as themes were often interwoven, perhaps partly reflecting the complex employment of discourse in constructing addiction. In addition, it was difficult to choose examples from the corpora for more detailed analysis as it all seemed important, and I wanted to do justice to the time so kindly given by participants. Lastly, the importance of non-

textual cues such as tone of voice were highlighted from the use of different corpora, it seemed like valuable extra information in considering the context of the text during interpretation.

Power Operating Within the Process.

Whilst considering clinical implications from this project, I felt a pull towards needing to provide an application. In addition, research is historically situated in an 'expert' position of generating and imparting knowledge, rather than learning with. Being in a more powerful position is something I find uncomfortable. However, this did not come with immunity to the pull of fitting in within systems of power situated within the course and academic process. I had to be cautious of this power dynamic and coming back to critical psychology ideas helped with this.

For example, I was quick to think implications would include specific words to avoid, and that people should share their stories of addiction in an attempt to reduce stigma. The former would not have represented the findings accurately, and the latter could be an unsafe practice generalisation. That critical stance of questioning the motive and holding in mind the best interests of people who have experience of addiction, helped me to keep suggestions tentative, and routed in the findings. I recalled a discussion between focus group attendees regarding not talking to people about their addiction to avoid judgement, and this led me to explore people's experiences of sharing their story as part of anti-stigma campaigns.

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Appendices

Appendix A

Author Guidelines for Addictive Behaviour

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Systematic Review Author Disclosure Statements

Contributors: Author A and C were involved in the conceptualization of the study. Author A wrote the protocol, and conducted the methodology, analysis, and project administration. Authors B and C provided supervision. Author A wrote the first draft of the manuscript, all authors contributed to the review and edit, and have approved the final manuscript.

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Declarations of interest: none

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If you do not already have an ORCID ID please follow this link to create one or visit our ORCID homepage to learn more.

5.2 Information required for completing your submission
You will be asked to provide contact details and academic affiliations for all co-authors via the submission system and identify who is to be the corresponding author. These details must match what appears on your manuscript. The affiliation listed in the manuscript should be the institution where the research was conducted. If an author has moved to a new institution since completing the research, the new affiliation can be included in a manuscript note at the end of the paper. At this stage please ensure you have included all the required statements and declarations and uploaded any additional supplementary files (including reporting guidelines where relevant).

5.3 Permissions
Please also ensure that you have obtained any necessary permission from copyright holders for reproducing any illustrations, tables, figures or lengthy quotations previously published elsewhere. For further information including guidance on fair dealing for criticism and review, please see the Copyright and Permissions page on the SAGE Author Gateway

6. On acceptance and publication
6.1 SAGE Production
Your SAGE Production Editor will keep you informed as to your article's progress throughout the production process. Proofs will be made available to the corresponding author via our editing portal SAGE Edit or by email, and corrections should be made directly or notified to us promptly. Authors are reminded to check their proofs carefully to confirm that all author information, including names, affiliations, sequence and contact details are correct, and that Funding and Conflict of Interest statements, if any, are accurate. Please note that if there are any changes to the author list at this stage all authors will be required to complete and sign a form authorizing the change.
6.2 Online First publication
Online First allows final articles (completed and approved articles awaiting assignment to a future issue) to be published online prior to their inclusion in a journal issue, which significantly reduces the lead time between submission and publication. Visit the SAGE Journals help page for more details, including how to cite Online First articles.

6.3 Access to your published article
SAGE provides authors with online access to their final article.

6.4 Promoting your article

Publication is not the end of the process! You can help disseminate your paper and ensure it is as widely read and cited as possible. The SAGE Author Gateway has numerous resources to help you promote your work. Visit the Promote Your Article page on the Gateway for tips and advice.

7. Further information

Any correspondence, queries or additional requests for information on the manuscript submission process should be sent to the *Qualitative Health Research* editorial office as follows:

Vanessa Shannon, Managing Editor
Email: vshannonqhr@gmail.com

Appendix D

Systematic Review Search Terms

Database: EMBASE

Search platform: OVID

Concept 1

1. Stigma* .mp
2. Stereotyping .mp
3. Social discrimination .mp
4. Social distance .mp
5. Stereotyping/
6. Social discrimination/
7. Social distance/

Concept 2

1. (substance or drug or alcohol) adj2 (abuse or “use” or addiction or misuse or disorder).mp
2. Alcoholism .mp
3. Gambling.mp
4. Gaming.mp
5. Drug dependence/
6. Gambling/

Concept 3

1. Biology .mp
2. Neuroscience .mp
3. Neurobiology .mp
4. Biogenetic .mp
5. Genetic .mp
6. Brain disease model of addiction .mp
7. Disease model of addiction .mp

N.B. The search field for all terms will be .mp (title, abstract, heading word, drug trade name, original title, device manufacturer, drug manufacturer, device trade name, keyword, floating subheading word, candidate team word)

Database: MEDLINE complete

Search platform: EBSCO

Concept 1

1. Stigma*
2. Stereotyping
3. “Social discrimination”
4. “Social distance”
5. (MH "Stereotyping")
6. (MH "Social Discrimination")
7. (MH "Social Distance")

Concept 2

1. (substance or drug or alcohol) N2 (abuse or use or addiction or misuse or disorder)
2. Alcoholism
3. Gambling
4. Gaming
5. (MH "Substance-Related Disorders")
6. (MH "Gambling")

Concept 3

1. Biology
2. Neuroscience
3. Neurobiology
4. Biogenetic
5. Genetic
6. “Brain disease model of addiction”
7. “Disease model of addiction”

N.B. The search field for all terms will be ‘no field selected’ (authors, title information, abstract, keywords and subjects)

Database: CINAHL complete

Search platform: EBSCO

Concept 1

1. Stigma*
2. Stereotyping
3. “Social discrimination”
4. “Social distance”
5. (MH "Stereotyping")
6. (MH "Discrimination")
7. (MH "Social Isolation")

Concept 2

1. (substance or drug or alcohol) N2 (abuse or use or addiction or misuse or disorder)
2. Alcoholism
3. Gambling
4. Gaming
5. (MH "Substance Use Disorders")
6. (MH "Gambling")

Concept 3

1. Biology
2. Neuroscience
3. Neurobiology
4. Biogenetic
5. Genetic
6. “Brain disease model of addiction”
7. “Disease model of addiction”

N.B. The search field for all terms will be ‘no field selected’ (authors, title information, abstract, keywords and subjects)

Database: APA PsychInfo

Search platform: EBSCO

Concept 1

1. Stigma*
2. Stereotyping
3. “Social discrimination”
4. “Social distance”
5. (DE "Stereotyped Attitudes")
6. (DE "Social Discrimination")
7. (DE "Social Isolation")

Concept 2

1. (substance or drug or alcohol) N2 (abuse or use or addiction or misuse or disorder)
2. Alcoholism
3. Gambling
4. Gaming
5. (DE "Substance Use Disorder")
6. (DE "Gambling")

Concept 3

1. Biology
2. Neuroscience
3. Neurobiology
4. Biogenetic
5. Genetic
6. “Brain disease model of addiction”
7. “Disease model of addiction”

N.B. The search field for all terms will be ‘no field selected’ (authors, title information, abstract, keywords and subjects)

Appendix E

Risk of Bias Table

Author/s	Was the research question or objective in this paper clearly stated?	Was the study population clearly specified and defined?	Was the participation rate of eligible persons at least 50%	Were all the subjects selected or recruited from the same or similar populations (including the same time period)? Were inclusion and exclusion criteria for being in the study	Was a sample size justification, power description, or variance and effect estimated provided?	For the analyses in this paper, were the exposure (s) of interest measured prior to the outcome(s) being measured?	was the timeframe sufficient so that one could reasonably expect to see an association between exposure and outcome if it existed?	For exposures that can vary in amount or level, did the study examine different levels of the exposure as related to the outcome (e.g. categories of exposure, or exposure measured	were the exposure measures (Independent Variables) clearly defined, valid, reliable, and implemented consistently across study participants?	was the exposure assessed more than once over time?	Were the outcome measures (dependent variables) clearly defined, valid, reliable, and implemented consistently across all study participants?	were the outcome assessors blinded to the exposure status of the participants?	Was loss to follow-up after baseline 20% or less?	Were key potential confounding variables measured and adjusted statistically for their impact on the relationship between exposure and outcome?	Quality rating
Avery et al. (2020)	+	+	CD ?	−	+	−	−	−	−	NA	+	NR ?	NA	−	Poor
Haqanee, & Lalonde (2014)	+	+	CD ?	−	+	−	−	+	+	NA	+	NR ?	NA	+	Fair

Heberlein et al. (2014)	+	?	CD ?	+	+	−	−	+	−	−	+	−	NA	CD ?	Poor
Henderson, & Dressler (2017)	+	+	n.a	+	+	−	−	+	−	NA	+	NR ?	NA	+	Good
Hing et al. (2016)	+	+	+	+	+	−	−	+	−	NA	+	NR ?	NA	+	Fair
Mannarini & Boffo (2015)	+	+	n.a	+	−	−	−	+	−	NA	+	NR ?	NA	+	Fair
Meurk et al (2014)	+	+	−	+	+	−	−	+	−	NA	+	NR ?	NA	−	Fair
Pescosolido et al. (2010); Schnittker (2008)	+	+	+	+	+	−	−	+	−	NA	+	NR ?	NA	+	Fair
Rundle et al. (2021)	+	+	+	+	+	−	−	+	−	NA	−	NR ?	NA	+	Fair
Speerfork et al. (2014); Schomerus et al. (2014)	+	+	CD ?	+	+	−	−	+	+	NA	+	NR ?	NA	+	Good

Subramaniam et al. (2017); Pang et al. (2018)	+	+	+	+	+	−	−	+	−	NA	+	NR ?	NA	+	Fair
Wiens and Walker (2014)	+	+	+	+	+	+	+	+	+	+	+	−	+	+	Good

Appendix F

Ethical Approval Letter

Ymchwil Iechyd a Gofal Cymru
Health and Care Research Wales

NHS
Health Research Authority

Miss Harriet Rowe
Department of Psychological Sciences
Norwich Medical School
University of East Anglia
NR4 7TJ

Email: approvals@hra.nhs.uk

08 June 2020

Dear Miss Rowe

HRA and Health and Care Research Wales (HCRW) Approval Letter

Study title:	**Exploring the social constructions of 'addiction' and the consequences of their application within discursive practice through critical discourse analysis.**
IRAS project ID:	**273906**
Protocol number:	**N/A**
REC reference:	**20/LO/0435**
Sponsor	**University of East Anglia**

I am pleased to confirm that HRA and Health and Care Research Wales (HCRW) Approval has been given for the above referenced study, on the basis described in the application form, protocol, supporting documentation and any clarifications received. You should not expect to receive anything further relating to this application.

Please now work with participating NHS organisations to confirm capacity and capability, in line with the instructions provided in the "Information to support study set up" section towards the end of this letter.

How should I work with participating NHS/HSC organisations in Northern Ireland and Scotland?
HRA and HCRW Approval does not apply to NHS/HSC organisations within Northern Ireland and Scotland.

If you indicated in your IRAS form that you do have participating organisations in either of these devolved administrations, the final document set and the study wide governance report (including this letter) have been sent to the coordinating centre of each participating nation. The relevant national coordinating function/s will contact you as appropriate.

Please see IRAS Help for information on working with NHS/HSC organisations in Northern Ireland and Scotland.

How should I work with participating non-NHS organisations?
HRA and HCRW Approval does not apply to non-NHS organisations. You should work with your non-NHS organisations to obtain local agreement in accordance with their procedures.

What are my notification responsibilities during the study?

The standard conditions document "*After Ethical Review – guidance for sponsors and investigators*", issued with your REC favourable opinion, gives detailed guidance on reporting expectations for studies, including:

- Registration of research
- Notifying amendments
- Notifying the end of the study

The HRA website also provides guidance on these topics, and is updated in the light of changes in reporting expectations or procedures.

Who should I contact for further information?
Please do not hesitate to contact me for assistance with this application. My contact details are below.

Your IRAS project ID is **273906**. Please quote this on all correspondence.

Yours sincerely,
Rebecca Evans
Approvals Specialist

Email: approvals@hra.nhs.uk

List of Documents

The final document set assessed and approved by HRA and HCRW Approval is listed below.

Document	*Version*	*Date*
Evidence of Sponsor insurance or indemnity (non NHS Sponsors only) [Sponsor professional indemnity]		01 May 2019
Interview schedules or topic guides for participants [Topic Guide]	3	16 December 2019
IRAS Application Form [IRAS_Form_28022020]		28 February 2020
IRAS Application Form XML file [IRAS_Form_28022020]		28 February 2020
IRAS Checklist XML [Checklist_28022020]		28 February 2020
IRAS Checklist XML [Checklist_29042020]		29 April 2020
IRAS Checklist XML [Checklist_29052020]		29 May 2020
Letter from sponsor [Letter from sponsor]		11 February 2020
Letters of invitation to participant [Participant permission to contact form (previously expression of interest form)]	3	21 April 2020
Letters of invitation to participant [Permission to Contact form]	4	19 May 2020
Letters of invitation to participant [Participant expression of interest form]	2	13 December 2019
Letters of invitation to participant [Contact form for summary of findings dissemination]	1	24 November 2019
Non-validated questionnaire [Participant demographic questionnaire]	4	05 January 2020
Organisation Information Document [Organisation of information Document]		28 January 2020
Other [Evidence of Sponsor insurance - non-NHS]		01 May 2019
Participant consent form [Participant consent form]	2	13 December 2019
Participant information sheet (PIS) [Participant information sheet]	4	24 January 2020
Participant information sheet (PIS) [Participant Information Sheet]	5	21 April 2020
Referee's report or other scientific critique report [Thesis proposal UEA feedback]		25 July 2019
Referee's report or other scientific critique report [Summary of changes, and response to feedback]		05 January 2020
Research protocol or project proposal [Thesis Proposal]	2	13 December 2019
Schedule of Events or SoECAT [Schedule of Events]		24 January 2020
Summary CV for Chief Investigator (CI) [Harriet Rowe CV]		06 December 2019
Summary CV for student [Harriet Rowe CV]		06 December 2019
Summary CV for supervisor (student research) [Supervisor CV]		05 January 2020
Summary, synopsis or diagram (flowchart) of protocol in non technical language [Lay summary of study]	2	13 December 2019
Summary, synopsis or diagram (flowchart) of protocol in non technical language [Project timeline]		05 January 2020
Summary, synopsis or diagram (flowchart) of protocol in non technical language [Flowchart of participant involvement]		13 December 2019

IRAS project ID	273906

Information to support study set up

The below provides all parties with information to support the arranging and confirming of capacity and capability with participating NHS organisations in England and Wales. This is intended to be an accurate reflection of the study at the time of issue of this letter.

Types of participating NHS organisation	Expectations related to confirmation of capacity and capability	Agreement to be used	Funding arrangements	Oversight expectations	HR Good Practice Resource Pack expectations
There is only one participating NHS organisation therefore there is only one site type.	Research activities should not commence at participating NHS organisations in England or Wales prior to their formal confirmation of capacity and capability to deliver the study.	An Organisation Information Document has been submitted and the sponsor is not requesting and does not expect any other site agreement to be used.	No study funding will be provided to sites as per the Organisation Information Document.	The Sponsor has confirmed that a Principal Investigator is required at site.	No Honorary Research Contracts, Letters of Access or pre-engagement checks are expected for local staff employed by the participating NHS organisations. Where arrangements are not already in place, research staff not employed by the NHS host organisation undertaking any of the research activities listed in the research application would be expected to obtain a Letter of Access based on standard DBS checks and occupational health clearance.

Other information to aid study set-up and delivery

This details any other information that may be helpful to sponsors and participating NHS organisations in England and Wales in study set-up.
The applicant has indicated they do not intend to apply for inclusion on the NIHR CRN Portfolio.

Appendix G

Ethical Approval Email - Amendment

From: bromley.rec@hra.nhs.uk
Sent: 03 November 2020 18:11
To: Harriet Rowe (MED - Postgraduate Researcher)
Subject: IRAS PROJECT ID 273906, REC Reference 20/LO/0435 Confirmation of favourable opinion for substantial amendment

Dear Miss Rowe

IRAS project ID:	273906
REC reference:	20/LO/0435
Short Study title:	Social Constructions of 'Addiction'
Date complete amendment submission received:	22 September 2020
Amendment No./ Sponsor Ref:	SA1
Amendment Date:	16 September 2020
Amendment Type:	**Substantial**
Outcome of HRA Assessment	**This email also constitutes HRA and HCRW Approval for the amendment, and you should not expect anything further.**

I am pleased to confirm that this amendment has been reviewed by the Research Ethics Committee and has received a Favourable Opinion. Please find attached a copy of the Favourable Opinion letter.

HRA and HCRW Approval Status

As detailed above, **this email also constitutes HRA and HCRW Approval for the amendment**. No separate confirmation of HRA and HCRW Approval will be issued.

User Feedback

The Health Research Authority is continually striving to provide a high quality service to all applicants and sponsors. You are invited to give your view of the service you have received and the application procedure. If you wish to make your views known please use the feedback form available on the HRA website: http://www.hra.nhs.uk/about-the-hra/governance/quality-assurance/.

If you require further information, please contact me.

Kind regards

Nina Bakhshayesh
Level 3, Block B | Whitefriars | Bristol Research Ethics Committee Centre | BS1 2NT
T. 0207 104 8063
E. bromley.rec@hra.nhs.uk
W. www.hra.nhs.uk

Sign up to receive our newsletter HRA Latest.

Appendix H
r/IAmA FAQ/Rules

Welcome to the /r/IAmA FAQ
Moderators can be contacted using the Message the Mods link in the sidebar or by email at mods@askmeanythi.ng
What is IAmA?
The IAmA (as in I am a _____, Ask Me Anything) Community is a place on Reddit where a new kind of crowdsourced interview can happen, which we call an Ask Me Anything.
The interviewee begins the process by starting a post, describing who they are and what they do. Then commenters from across the internet leave questions and can vote on other questions according to which they would like to see answered.
The interviewee can go through and reply to the questions they find interesting, and easily see those questions the internet is dying to have the answer too.
Because the internet is asking the questions, they're going to be a mix of serious and lighthearted, and you'll find yourself sharing all kinds of things you won't find in a normal interview.

What Topics Are Allowed?
Anyone can do an Ask Me Anything. The topic of the AMA must meet the rules below, and you must provide proof of the claims you are making.
Ask Me Anything topics fall into two categories:
Something uncommon that plays a central role in your life.
The prime example of this is a person's job; posts about someone's occupation are almost always allowed. This rule exists because we want a person's topic to be something that they know thoroughly and is important to them; this gives them more to discuss and a more thorough background in the field.
A truly interesting and unique event.
The quintessential example used for this is "I just climbed Mount Everest." It's an activity that doesn't play a central role in someone's life but is so uncommon that the users would not have experiences of their own to relate to it.
AMAs should NOT be about:

- Common topics. This includes: Your day, your girlfriend, being bored or drunk, weight loss, your opinion on something, your gender identity, your religion, or your psychiatric disorders, needing sympathy or support, etc.
- Unprovable topics. Stories about fetishes, abuse, addiction, relationships, sexual behaviors, and sexuality are usually unprovable.
- Your experiences on the internet. These are only allowed if it can be objectively determined that the activity is a significant portion of your life, using factors such as income received, time devoted to it, uniqueness and level of creativity, and outside attention it gets. Also consider /r/InternetAMA. Being the face of a meme or famous on Reddit doesn't qualify you for an AMA unless you've made it your job.
- Crowd Funding - AMA submitters that include crowdfunding campaign links must be eligible for an AMA without the campaign for it to be allowed. Additionally, the focus of the AMA must not be the campaign, and the campaign must be fully funded. If the campaign has not reached its goal, it is deemed an advertisement and will be removed. The final

decision on eligibility rests with the moderators. IAmA is not your advertising platform.

- Where you live. If you want to post about where you live, your post should go in /r/ILiveIn. However, if your location makes you witness to specific current events that you can discuss (for example: I live in Kabul and have witnessed the war in Afghanistan firsthand), then it will be an acceptable topic, but please make sure to include that in your title.
- Something you plan to do. AMAs should be about something you have already done. Something you plan to do, a product you plan to release, and similar topics will be an acceptable AMA after you have done them/
- Posts about suicide. Discussion about suicide will be removed and directed to /r/suicidewatch. This isn't meant to be hurtful, it's a well-researched fact that open discussion of this type has a measurable impact on increasing suicide rates when it's not regulated. /r/suicidewatch is a community that can better handle this.
- Being related to someone: If you're related to someone famous, by all means, encourage your family member to do an AMA and help them. But it's not a sufficient AMA topic to be simply related to someone famous.

Other Restrictions:

- Please don't submit a post just to "see if there's interest." There will be, you should do the AMA.
- Please limit yourself to one AMA per user, per topic, per 3 month period. If you are repeatedly submitting the same AMA every three months to promote your business, moderators reserve the right to remove the AMA. This is not your advertising platform.
- Giveaways are not permitted on IAmA. Contests and giveaways already running on a third party site prior to the AMA are acceptable

How do I do an Ask Me Anything?

Step 1:

Go to the IAmA subreddit: http://www.reddit.com/r/IAmA/

Step 2

In order to post your thread, you must “submit a link”. On the top right of the IAmA page, you can see three buttons, one of which is a blue button titled “Submit an AMA”. Or you can click here: http://www.reddit.com/r/IAmA/submit

Step 3:

Now you’ll need to fill out your thread.

TITLE: “Hi, I’m XXX. Ask me anything!” Feel free to elaborate and/or personalize.

TEXT: This is the additional content/information that redditors will see once they enter the thread. Include promotional information, more details about who you are, etc. This is also a good place to put your proof (please include a link to a Twitter page, an image with a sign saying “Hi” to reddit, a Facebook post link, etc.) More information on proof here.

Please don't use link shorteners here, the Reddit spam filter will remove your post.

Hit Submit, and you are ready to go!

The moderators suggest that you Submit your AMA no more than 15-30 minutes prior to your scheduled AMA time. This is more than enough time for redditors to

start populating the thread with questions. Then, when you're ready to start, you can jump right into answering questions.
Step 4:
Go back to the new queue of the main IAmA subreddit page to see that your thread is live: http://www.reddit.com/r/IAmA/new
Step 5
Click your live link thread when you're ready to start answering questions. Hopefully, there will be questions waiting for you.
When you see a question in the thread look directly below it and hit "reply". That will allow you to answer that person's question directly and your answer will fall directly below it.
Continue this process throughout the thread. You can answer whichever questions you'd like and you can ignore any that you don't want to respond to.
Step 6:
Once you've completed your AMA you can hit the edit button underneath the intro text area to leave a sign-off message.

How do I schedule an Ask Me Anything on the calendar?
If you have an existing fanbase, are a celebrity, or are an otherwise particularly notable or interesting person, you may be eligible for a spot on the IAmA sidebar calendar. If you're interested in applying for a spot, please pick a date and time for the AMA and be prepared to provide proof. Then navigate to the following link and fill out the application form:
https://askmeanythi.ng

Does /r/IAmA allow crossposts from other subreddits?
Sure. People often want to conduct an IAmA in a small specialized subreddit where they can interact with their fans. That's no problem. You're free to raise awareness of it by posting in /r/IAmA, but you have to do it in a specific way so that people know that the questions will be answered elsewhere. Your headline should indicate who the person is and where the AMA will be taking place.
All cross-posts must contain [Crosspost] or [xpost] in the title. Crossposts will be automatically locked by AutoMod to ensure questions are asked in the correct AMA thread.
Furthermore, cross-posts of AMAs that would not be allowed in /r/IAmA in the first place are not allowed, so make sure the AMA meets our standards of acceptable topics.

Can I do an AMA about my Startup, blockchain business, or crowdfunding campaign?
Our most important rule to consider when looking to do an AMA about your new project is that your project must be complete, funded, and have a finished product.
What does this mean for my:
Startup?
Does your startup have a product that you have launched and are selling to real customers? Are you funded? Do you have an income? If the answer to these questions is yes, you can do an AMA. If the answer is no, please come back when this is the case.
Blockchain-based business?

Do you have existing funding in a fiat currency? Is your product not only prototyped but actually in use in a real-world situation? Do you have an income with value in fiat currency? If you can't answer yes to all of these questions, you're not ready for an AMA yet. A Whitepaper and a good idea are not enough to do an AMA. If you're still raising money via an ICO or similar mechanism, you're probably not ready to do an AMA.
Kickstarter or other crowdfunded project?
If the crowdfunding campaign is still happening, you're probably not ready. Your product needs to be complete and being sold to customers before you're ready to do an AMA. That said, if you have previous products or are an existing brand and you'd like to do an AMA about those experiences, we will permit limited promotion of your new crowdfunding campaign so long as it is not the focus of the AMA.
If you have any questions about these rules or want to double-check your eligibility, please email us at mods@askmeanythi.ng

Can you share our social media posts?
Sure, just tweet at us @reddit_ama or tag our Reddit IAMA Facebook or Instagram pages and we'd be happy to share.

What Constitutes Proof?
Only you know what you have available to prove who you are. Our users want to be sure that you are actually telling the truth, so whatever you have that will convince the readers is great. We prefer that the proof is posted publicly whenever possible so that the users can decide how credible it is.
There are two proof standards:
a) Public proof is proof a reasonable person would believe validates your claim.
b) Private verification with the moderators requires unequivocal proof your claim is true. The Moderators of IAMA have informally partnered with TruePic to help verify submitted proof pictures and videos.
NOTE: Under NO circumstances should you use our confidential proof submission systems to submit illegal, classified, or otherwise legally problematic material. We don't want it, and are obligated to report criminal activity.

What is Moderator Verification?
If your proof must remain confidential, you may submit it for confidential moderator verification. Please be prepared to send tangible documentation sufficient to meet an unequivocal proof standard.
Moderators may ask for more proof if they deem it necessary. Note that simply linking to a normal Facebook, LinkedIn, or other social media page is not usually sufficient.
NOTE: Under NO circumstances should you use our confidential proof submission systems to submit illegal, classified, or otherwise legally problematic material. We don't want it, and are obligated to report criminal activity.

What is IAmA's policy on comment removals?
Comments will be removed under a few circumstances:
Abusive or harassing comments
Comments responding to verification that are unrelated to verification.
Requests for personal favors from the OP (For example, "OP, can you send me a signed autograph").

In AMA posts only, top-level comments must ask a question. This includes "OMG I love you..." and "No questions, just thanks!"
Comments where there would be no possibility of a real answer, especially where it is deliberately creepy or offensive.
"I bet OP won't answer this"-type responses, which usually come after the OP has finished responding to questions.
"Fluff," non-contributing responses from users, responding to all of the OP's comments for karma/attention.
Repeatedly asking the same question, which violates Reddit's site-wide rules.
Users attempting to bypass the rules by adding a ? to a nonquestion will be permanently banned from the subreddit.
A subreddit or other website organizing and voting for a group comment/question is considered to be vote cheating and is subject to removal. It is a violation of the rules of reddit and risks a sitewide ban.
Questions must be directed toward the individual(s) doing the IAMA.
Under our policies, astroturfing is the practice of an individual or group of individuals who plant questions in an IAmA post for a particular purpose. This kind of behavior will result in a permanent ban from /r/IAmA.

How should I vote on Ask Me Anything posts?
You should vote on AMA posts based on: Whether the OP has interesting information or experiences, regardless of your personal opinion of that person or their experiences. The Westboro Baptist Church is a good example; even if you vehemently disagree with their viewpoint, they still have a very uncommon perspective to share. Downvoting the OP because you disagree with them will only result in an undesirable atmosphere and will likely end up with OP ending the AMA early, or not put effort into answering questions. Rather than downvoting, which just hides the comment from being seen by anyone, offer a reply with your reasoned thoughts. This way, you can open a dialogue with OP and potentially debate the differing points of view.
Upvote for providing proof in the post. If there is no proof, ask for it! If the OP ignores requests for proof, or just dismisses it, then report it to the mods.
Once it has started, how they are responding to questions overall. If you feel that they are only here to plug a product and didn't take the time to interact with the community, then feel free to downvote it.

How should I vote on responses?
You should vote on an OP's comments based on: A response that addresses the question(s) being asked: The OP's answer is pretty much always relevant to the discussion (it is their topic, after all) and it should rarely be downvoted, even if you disagree with what they say. A thorough and detailed answer: If the OP is just using one-word answers or giving flippant responses, then feel free to downvote them. The answers in Woody Harrelson's AMA are a great example of this: if the OP doesn't answer a question well, then feel free to downvote it Good humor and playing along with friendly banter
If you disagree with the OP's opinion, offer a reply with your reasoned thoughts. This way, you can open a dialogue with op and potentially debate the differing points of view. This is much better than downvoting, which just hides the comment from being seen by anyone and makes the AMA harder to navigate.

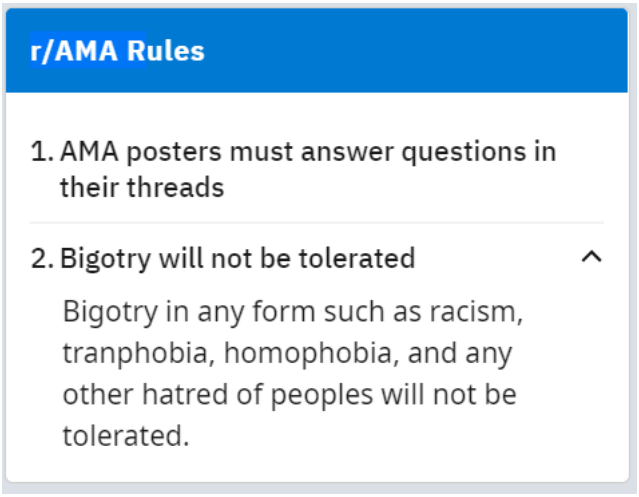
How should I vote on Requests?
Note that requests belong in /r/IAmARequests, not /r/IAmA.
You should vote on requests based on: Whether it would be a good AMA if it were fulfilled. See above for those qualities
Whether the OP could provide proof if it were fulfilled. Often requests are posted for things that would be impossible to verify. You can also make more specific requests: for example, instead of "AMA request, a murderer" you could request "AMA, someone who has been convicted of murder," because then they would have court documents as proof.
How likely it is that an AMA would happen. Generally, requesting one specific person is difficult, but you can improve your chances by providing a way to contact that person, like their twitter account. Requests are more likely to be fulfilled if you're requesting a group of people rather than just one in particular
Upvote requests which have included at least 5 questions that are relevant to the person being requested. If these are not present, please report the post and message the mods!

How do I submit an AMA Request?
To submit a request, simply preface your title with [AMA Request] so that it will show up in green on the page. Make sure you spell "request" correctly. Then, type out who you would like to see do an AMA.
In the text of the post, please include 5 or more specific questions for the person you would like to have an AMA from. Requests without the 5 questions will be removed by a bot (so please use question marks). This is to ensure that there really is enough interest in the person that there would be something to talk about.
Additionally, any request for a public figure that has some means of public contact must have it included in the post. Their twitter page, their facebook page, the contact sheet from their website, whatever. Any way that our users can tell this person that we want an AMA from them. Requests that do not comply with this requirement will be removed. This does not apply to requests for non-public figures (example, "AMA request: Joe Schmoe, lead designer of New Video Game), or requests for no one in particular (example, "AMA request: a farmer"). It only applies to requests for public figures.
Requests should be for someone who would qualify for an AMA. This means requests should meet our topic restrictions and be provable. The best requests are ones that you think have a good chance to succeed.
Finally, please search first to ensure the individual or individuals you are requesting have not already been requested within the last 2 weeks, and that they have not already done an AMA recently. Each duplicate request within a 2-week period will be removed.

What branding or logo should I use?
See here
Last revised by
cahaseler - 3 months ago

Appendix I

r/AMA Rules



Appendix J

Table of Demographic Information Extracted from Reddit Corpus

Demographic characteristic	Frequency *n*
Gender	
Female	2
Age	
20	1
28	1
Locality	
USA	2
Canada	1
Qualification status	
PHD	1
College graduate	1
Home status	
Living on a reservation	1
Treatment/ service use	
methadone clinic (including counseling and group therapy)	1
intensive outpatient treatment (12 steps based)	1
treatment unspecified	1
Other diagnoses [a]	
depression	2
low self-esteem	1
trauma	1
EUPD	1
arthritis	1

Note. [a] n=4.

Appendix K

Transcription Example Extract

A: People are suffering, though out there with having an addiction to that though still even know that I I I particularly betting, I don't have a problem with betting, erm but I've I've to me, but when that became more, more erm accessible with all this advertising and that, and immediately it sort of. Raised a red flag to me and it was like ohh my goodness, there's another route. You know that you could be going down, like why people become addicted so. Erm I think they're all they're just not maybe, as in some ways, not as talked about. I think everybody's got some you know particularly with gaming and that, having my children grow up. That y you see a difference in their personality and everything if they've been on it, too long and you hear of people who just can't not game so I think All of it is quite scary, everybody can become addicted to all of them and in really horrible ways.=
B: [yeah
A: =Although that's mental not necessarily physical. Erm Because obviously alcohol and drugs it's you have a physical withdrawal don't you, as well as a mental
C: yeah, yeah.
D: But also I think at the moment. With, this is not an excuse in anyway with lockdown. I think. With the betting, the gambling. The gamin.
B: Yeah.
D: With it all. Apart from the the gyms, obviously because there are [shut. Um -=
C: [never open yeah.
D: =Everyone and anyone, sorry anyone could fall into. The trap that we've all fallen into, and it's so easy to do that in this climate. Um, and all you're getting on TV is. Like you said, Betfred.
B: yeah
D: Paddy Power all the.
B: Yeah.
D: All the gambling sites are. Chucking it out there. – Um And it's not doing anyone any favours.
A: No, I don't think so, and and I am, I mean, I know for me, because to me, I have an addictive nature, particularly with gambling if I was to possibly go on those sites. I I I particularly like you say with not having much else to do at the moment. It could become another habit without you know without thinking it would be to start with, [but once. You=
D & B: [yeah
A: =start you just don't know. Um -
D: It's it's it's easy picking for the companies that are advertising and there should be.
C: More regulations [out there.
D: [Yeah more reg yeah. it should be more regulated.
C: [yea

Key: - short untimed pause

[simultaneous speech

= continuous flow of speech carried over to new line