

The association between shame and substance misuse in young people: A review of the literature

BACKGROUND: Shame has been associated with a range of maladaptive behaviours, including substance abuse. Young people may be particularly vulnerable to heightened shame sensitivity, and substance abuse is a significant problem amongst UK adolescents. Although there appears to be a relationship between shame and substance abuse, the direction of the relationship remains unclear. **AIM:** We reviewed the literature relating to shame and substance abuse amongst young people. **METHOD:** Five electronic databases were searched for articles containing terms related to 'adolescence', 'shame' and 'substance abuse'. Of the two hundred and twelve articles identified in the first sweep, six were included in the final analyses. **RESULTS:** Sexual abuse is indicated as a predictor of shame-proneness. Substance abuse may be a mechanism by which individuals cope with negative feelings. In general, there is a lack of literature investigating the shame-substance abuse relationship among adolescents. The available literature associates shame-proneness with poorer functioning and suggests that this may lead to psychopathology and early-onset substance misuse. Scant attention has been paid to the cognitive and emotional processes implicated. Further research is required to ascertain the strength of the shame-substance abuse relationship in young people and to develop appropriate interventions for this population.

1 The association between shame and substance misuse in young people: A review of
2 the literature

3 Masuma Rahim

4 School of Psychology, University of Surrey, Guildford, UK

5 Dr Robert Patton*

6 School of Psychology, University of Surrey, Guildford, UK

7 *Corresponding Author, r.patton@surrey.ac.uk, 01483 68 6861

Abstract

BACKGROUND: Shame has been associated with a range of maladaptive behaviours, including substance abuse. Young people may be particularly vulnerable to heightened shame sensitivity, and substance abuse is a significant problem amongst UK adolescents. Although there appears to be a relationship between shame and substance abuse, the direction of the relationship remains unclear. **AIM:** To review the literature relating to shame and substance abuse amongst young people. **METHOD:** Five electronic databases were searched for articles containing terms related to 'adolescence', 'shame' and 'substance abuse'. Of the two hundred and twelve articles identified in the first sweep, six were included in the final analyses. **RESULTS:** Sexual abuse is indicated as a predictor of shame-proneness. Substance abuse may be a mechanism by which individuals cope with negative feelings. In general, there is a lack of literature investigating the shame-substance abuse relationship among adolescents. The available literature associates shame-proneness with poorer functioning and suggests that this may lead to psychopathology and early-onset substance misuse. Scant attention has been paid to the cognitive and emotional processes implicated. Further research is required to ascertain the strength of the shame-substance abuse relationship in young people and to develop appropriate interventions for this population.

Keywords: shame; substance abuse; adolescents

28 **Introduction**

29 A significant body of research has investigated the effect of factors related to self-
30 concept on substance use in young people. Self-esteem, im

pu

 rity and shame
31 have all been associated with drug and alcohol use in young people but current
32 understanding  the association with shame in particular is limited. This paper will
33 review current empirical and conceptual understanding of the association between
34 shame and substance use in this population.

35 Shame relates to global, negative feelings about the self (Dearing, Stuewig, &
36 Tangney, 2005). It has been described as an intense negative emotion, which can
37 result in feelings of inferiority and powerlessness (Wicker, Payne, & Morgan, 1983).
38 Shame can arise from a disparity between the ideal self and the actual real self,
39 leading to feelings of inadequacy and disgust. Although it is generally associated
40 with negative consequences, it is notable that shame is a universally-experienced
41 emotion and that moderate levels can be beneficial (Cook, 1987; Potter-Efron,
42 1987).

43 Much of the literature has sought to distinguish the concepts shame and guilt. It has
44 been suggested that both emotions are essential to the experience of being human
45 and that they can occur either independently or in tandem with each other (Clark,
46 2012). Both shame and guilt enable self-evaluation and serve to guide our
47 interactions with others (Tangney & Dearing, 2002). Shame has been described as a
48 'failure of being', or global self-condemnation, whilst guilt has been referred to as a
49 'failure of doing' (Potter-Efron, 1987). As such, shame is characterised by 'hiding' the
50 self, whereas guilt may manifest itself in reparative behaviours. Consequently,
51 similar situations can result in distinct responses, depending on the individual's
52 attributional style (Lewis, 2008). Vulnerability to shame can arise from a conflict
53 between the ideal self and the actual self, whilst vulnerability to guilt is perceived to
54 result from conflict between the actual self and the 'ought' self (Moretti & Tory-
55 Higgins, 1990). It appears that shame is directed primarily at the self, whereas guilt
56 addresses the particular act, and may be implicated in social conformity (Quiles,
57 Kinnunen, & Bybee, 2002). Shame-proneness is often internalized and has been
58 associated with the development of psychopathology, whilst proneness to guilt
59 correlates with non-pathological, adaptive empathy (Tangney, Wagner, & Gramzow,

1992). Feeling shameful warns the individual that their actions may result in them being rejected by others; to avoid rejection, the individual seeks to find alternative ways of behaving (Nathanson, 1987).

The development of shame in children and young people

The development of shame is dependent on the individual possessing sufficient cognitive capacity, having an awareness of social rules and expectations, and an understanding of their behaviour in comparison to those expectations, as well as adequate theory of mind (Gilbert, 2002; Lewis, 2003). As such, it is unlikely that shame develops before the age of two years (Zahn-Waxler, Radke-Yarrow, Wagner, & Chapman, 1992).

Sexual abuse, insecure attachment styles and harsh parenting have all been associated with the development of shame in children (Feiring, Deblinger, Hoch-Espada, & Haworth, 2002; Gross & Hansen, 2000; Jeffrey & Jeffrey, 1991; Stuewig & McCloskey, 2005). Shame is not an automatic consequence of significant trauma, however. In families where factors such as parental substance misuse are implicated, children may develop more empathic attitudes as they try to minimise parental disturbance (Lewis, 1995). If they fail to do so, they are likely to blame themselves, developing a negative global attributional style and heightened proneness to shame (Lewis, 1995). Differences in the ways males and females are socialised can result in females developing a greater sense of responsibility and becoming more shame-prone than their male peers, despite having experienced similar early life events (Lewis, 1995; Tangney, 1990).

The manner in which shame manifests itself differs according to the child's developmental stage. Young children may experience shame as feeling embarrassed and inferior, coping with these adverse emotions by behaving in a controlling, critical or rageful manner (Bradshaw, 2005). They may also polarise themselves and others as being 'all good' or 'all bad'. During puberty shame can be experienced as limiting one's ability to form their identity and may serve to isolate the individual (Bradshaw, 2005). Self-evaluation is central to the development of shame in younger children (Lewis, 1995; Lewis, 2003), whereas adolescents are more likely to be self-evaluative and to compare themselves negatively to peers (Reimer, 1996). It may be the case that some adolescents develop an enhanced vulnerability to feeling

shameful, potentially resulting in the use of maladaptive coping strategies and making them more vulnerable to depression, eating disorders and suicide (Reimer, 1996).

Substance use amongst adolescents

By the age of 17, 75% of American adolescents have drunk alcohol and 28% report having binged on alcohol in the previous two weeks (Gunzerath, Hewitt, Li, & Warren, 2011). Those who begin using alcohol between the ages of 14 and 16 are four times as likely to develop alcohol-related problems in later life than those who begin drinking in their 20s (Gunzerath et al., 2011).

In the UK, 84% of 12-17 year-olds have drunk alcohol and 36% are frequent drinkers. 15% have been involved in antisocial behaviour as a result of drinking. 22% of boys and 25% of girls within this cohort have been drunk three or more times in the past month, whilst 26% and 29% respectively have binged on alcohol three or more times in the same time period. 42% of boys and 35% of girls report having been drunk at least once before the age of 13 (Institute for Alcohol Studies, 2010). The same report stated that two major reasons given for underage drinking were 'escapism' and 'gaining respect from peers'. With reference to illicit substances, 18% of 11-15 year-olds report having used drugs; 12% having done so in the past year. Around 5% of 11 year-olds have used drugs in the past year and the figure rises to 25% amongst 15-year olds. Cannabis is the most widely-used drug, taken by 8% of 11-15 year-olds in 2010. Truancy and school suspension are highly correlated with regular drug use, and although 23 000 Britons under the age of 18 accessed support for their substance misuse in 2009/10, only one in three completed treatment (NHSIC, 2011).

The relationship between shame and substance abuse

In adult samples, shame has been strongly implicated in behaviours which enable individuals to escape feelings of worthlessness and failure, such as binge-eating, sexual risk-taking and substance use (Adams & Robinson, 2001; Hayaki, Friedman, & Brownell, 2002; Peñas-Lledó, Fernández, & Waller, 2004; Talbot, Talbot, & Tu, 2004). Heightened feelings of shame significantly increase vulnerability to addictive behaviours, particularly substance abuse (Cook, 1987). Although several studies indicate that the feelings of shame which can arise from the stigma surrounding

substance misuse may serve as a barrier to treatment (Cook, 1987; Corrigan, Watson, & Miller, 2006; Luoma et al., 2007), it has been suggested that this stigma has a greater effect amongst certain groups. In particular, females seeking treatment for substance-related problems may face greater stigma than males and often risk the breakdown of intimate relationships, as well as the removal of their children (Blume, 1990; O'Connor, Berry, Inaba, & Weiss, 1994; Reed, 1987). Consequently, females who enter treatment programs often experience higher levels of shame and guilt than their male counterparts (Mason, 1991).

Rationale for the current review

As described, some evidence suggests that shame can arise from early adversity and that it is correlated with a range of maladaptive behaviours, including substance misuse. Substance misuse is a significant problem amongst young people but little research has investigated the impact of shame on drug and alcohol use in this population. This paper will review empirical evidence on the relationship between shame and substance abuse in young people in order to identify the areas that substance misuse interventions might focus on in this population.

Search strategy

Five electronic databases were searched (PsycArticles, PsycInfo, Medline, Web of Science and PubMed) for English-language articles published in peer-reviewed journals for all periods up to, and including, January 2012. Articles were searched for using terms related to 'adolescence' (e.g., 'adolescen*', 'teen*', 'child*', 'juvenile*', 'youth*'), 'shame' (e.g. 'shame*') and 'substance abuse' (e.g., 'substanc*', 'drug*', 'alcohol*', 'illicit*', 'drink*'). The use of '*' denotes truncated search terms. For the purposes of this review, 'adolescent' refers to individuals aged 11-19. Where databases could be searched by topic, 'psychology' was specified. The search yielded 220 unique results. Following review of the abstracts, articles were excluded if they were unavailable in English (n=9) or if they focused on unrelated physical or psychological health problems (n=58). A further 64 articles were excluded for other reasons, e.g. focusing on shame related to physical health issues such as HIV. Of the remaining 89 articles, 59 were excluded as they did not contribute to the literature relating to the relationship between shame and substance abuse (e.g. 19 papers focused on shame arising from parental substance abuse use). The remaining

156 articles (n=30) were read to ensure that they included a research question and
 157 outcome measures. Seven papers exclusively reviewed the literature, but were not
 158 empirical studies. Another five discussed cases and process issues in therapy but
 159 did not relate specifically to shame as either a contributing factor or a consequence
 160 of substance abuse. Given that these papers did not contribute to the scientific
 161 understanding of the relationship between shame and substance abuse, they were
 162 excluded. A further ten papers were excluded as they used samples of children (pre-
 163 teen) or adults (post-adolescent). Two papers were excluded as they used
 164 adolescent samples but did not address substance use. The final analyses included
 165 six empirical papers.

Results

Details of the articles reviewed can be seen in Table 1. All of the papers had been published between 1989 and 2012. Four of the studies were quantitative in methodology and two were qualitative. Amongst the quantitative studies, sample sizes ranged from 97-816. The qualitative studies employed 12 and 597 participants, respectively. One paper considered the development of shame in young people in treatment for substance use; five investigated the relationship between shame and substance use.

Insert Table 1 here

The role of sexual abuse in the development of shame

Of the six studies reviewed, one investigated factors resulting in heightened shame in later life (Edwall, Hoffmann, & Harrison, 1989). This study identified sexual abuse, including incest, as predictive of shame-proneness. In their qualitative study of 597 adolescent girls, it was found that 35% of inpatients receiving treatment for substance abuse reported previous sexual abuse. Sexual abuse was highly correlated with a history of physical abuse and those who had been sexually abused were more likely to have attempted suicide in the previous year. Sexual abuse was also highly correlated with feelings of shame, particularly amongst those who had experienced only extrafamilial abuse ($p < 0.001$). The authors concluded that abused female adolescents may internalise adverse experiences and construct an image of themselves as 'bad', making them vulnerable to suicidal ideation and mental health problems. Methodologically, however, the study had some limitations: 58 girls who denied having been sexually abused during interviews with the research team were categorised by their therapists as having reported sexual abuse in therapy sessions, and excluded from analyses. Additionally, the researchers made no use of standardised measures, and thus the severity of the shame experienced cannot be assessed. No attempt was made to ascertain the duration or nature of the sexual abuse and only limited information pertaining to the course of the participants' misuse of substances was available.

The relationship between shame and substance misuse

Two of the studies included in this review found significant associations between feelings of shame and maladaptive behaviours, including substance abuse (Abramowitz & Berenbaum, 2007; Dearing et al., 2005).

Abramowitz & Berenbaum's (2007) study found that the desire to enhance positive affect was a strong motivator of alcohol use, and that shame reliably predicted 'impulsive-compulsive' (IC) behaviours, including substance abuse, sexual activity, playing video games and obsessive-compulsive-type behaviours such as cleaning. Shame was most strongly associated with substance abuse (correlation = 0.16; $p < 0.05$). However, their data were based on retrospective accounts of behaviours the participants had engaged in during the past three months and, although the associations reported were statistically significant, there was no opportunity to investigate the direction of causality in the relationship. In addition, the sample was aged 16-30 and, as the authors note, many impulsive and compulsive behaviours diminish with age.

Carrying out semi-structured interviews with college students, Lashbrook (2000) found that the desire to avoid ridicule, isolation and feeling inadequate was a key factor in alcohol use. Despite the participants not using terms such as 'shame' explicitly, the literature suggests that ridicule, isolation and inadequacy are closely linked to constructs of shame-proneness (Cook, 1987; Potter-Efron, 1987; Wicker et al., 1983). It is possible that low self-esteem was implicated in these negative emotions, although this was not investigated as part of Lashbrook's study. More recent research indicates that low self-esteem is associated with vulnerability to peer pressure and increased substance use (Dielman, Campanelli, Shope, & Butchart, 1987)

Dearing et al. (2005) carried out three studies to test the relationships between shame- and guilt-proneness amongst undergraduate students and prison inmates, hypothesising that the former would be positively correlated with substance abuse, whilst the opposite would be true for guilt-proneness. Of their undergraduate sample, 7.3% had symptoms on problematic alcohol use and 15.4% indicated symptoms of problematic drug use. Shame was positively correlated with alcohol problems but not with problematic drug use. In contrast, guilt was found to correlate

negatively with both drug and alcohol problems; findings which supported those presented by Quiles et al. (2002). The authors concluded that although shame-proneness was significantly  associated with problematic drug use, it was more strongly correlated with alcohol use. The shame-substance abuse relationship appears consistent amongst samples regardless of the severity of substance abuse and appears to be applicable to a range of populations. The authors suggested that alcohol and drugs may be used as a way of coping with difficult feelings, such as shame, but noted that the use of substances may in itself result in additional shame.

The majority of the studies included in this review indicate that vulnerability to shame is associated with increased drug and alcohol use in young people. Some research suggests that feelings of shame can arise as a consequence of using substances (Arentzen, 1978; Blume, 1990; Cook, 1987; Corrigan et al., 2006; Fossum & Mason, 1986; Luoma et al., 2007; O'Connor et al., 1994; Reed, 1987), and, of the papers reviewed here, one suggests that, amongst those who already use substances problematically, shame may have a positive impact by increasing motivation to seek treatment. In their study of 188 16-24 year-olds entering treatment for moderately problematic substance abuse, Rosenkranz, Henderson, Muller, & Goodman (2012) found that those individuals who reported greater shame-proneness were more likely to recognise their substance misuse and seek treatment. Further research has suggested that these individuals demonstrate superior treatment outcomes (Williams et al., 2008). However, the data were subject to disclosure biases, and Rosenkranz et al. (2012) used a measure of treatment motivation which conflates proneness to shame with motivation to seek treatment, and which included items (e.g., If I remain in treatment it will probably be because I'll feel very bad about myself if I don't) open to being interpreted as either 'shame' or 'guilt' by participants.

Discussion

Summary of findings

This paper sought to review the literature relating to shame and substance abuse amongst young people. Despite the search strategy specifying 'adolescent', and variations thereof, only five papers used samples which investigated teenagers and young adults. An additional study carried out by Quiles et al. (2002), used a sample

aged ≤ 27 but excluded all participants aged 22-27 ($n=17$) from their analyses and was thus included in this review. Amongst the remainder of the studies the participants ranged in age from 7-80. It appears that there is a paucity of research into the association between shame and substance abuse amongst young people and this lack of data limits the extent to which theoretical or empirical conclusions can be drawn. It appears that early maltreatment and neglect can result in heightened shame-proneness, possibly as a result of the adverse experiences being internalised, and that greater maladjustment results from more severe adversity. Although the shame arising from maladaptive early experiences has been found to correlate significantly with substance-abusing behaviours, it may also motivate individuals to seek and engage in treatment. It appears from the evidence reviewed that it is shame which is most heavily implicated in these mechanisms, not guilt.

The literature suggests that shame-proneness is generally associated with poorer functioning, psychopathology and early-onset substance misuse. Adolescents are more likely to compare themselves negatively to peers (Reimer, 1996) and those who develop heightened proneness to shame may be more likely to utilise coping strategies such as criminal or risk-taking behaviours in an attempt to gain acceptance from peers (Adams & Robinson, 2001; Arnett, 1995; Hayaki, Friedman, & Brownell, 2002; Peñas-Lledó, Fernández, & Waller, 2004; Talbot, Talbot, & Tu, 2004).

Whilst there is some indication that higher levels of shame result in a greater number of maladaptive behaviours (Cook, 1987), it also appears that shame-proneness can affect males and females differently. Based upon the evidence reviewed here, it is tentatively speculated that shame in females results in behaviours which harm the self, such as eating disorders, whereas males externalise the negative self-image and act in a more antisocial manner. It is suggested that, if shame encompasses negative affect and symptoms typically observed in depression, it is to be expected that young people who demonstrate a tendency towards feeling shame would also score poorly on measures of self-worth and self-esteem.

The studies included in this review were conducted using a wide range of outcome measures and methodological designs; each of which demonstrated both strengths and limitations. For the most part, researchers made efforts to distinguish between

shame and guilt which is a key methodological requirement given the conceptual overlap in these variables. Nevertheless, it is of note that each of the studies reviewed here conceptualised shame in distinct ways and investigated different facets of substance use, further limiting the extent to which overarching conclusions can be drawn.

Gaps in the literature

In addition to the limited literature that focuses exclusively on adolescent populations, the majority of studies have failed to address misuse of substances in a discrete manner. Although some studies asked about drug and alcohol use separately (Dearing et al., 2005; Quiles et al., 2002), not all did so. It cannot be presumed a priori that all addictive behaviours are a product of the same mechanisms and this warrants further investigation.

More fundamentally, although there is some evidence of an association between shame and substance abuse, there has been little focus on the cognitive and emotional processes which mediate this relationship. Shame is associated with substance abuse, and substance abuse has a major impact on both society and the individual; as such, future research should try to identify salient risk factors and develop effective treatments. This review has not included studies which aim to treat substance misuse per se; although two studies did use participants engaged in treatment programmes (Edwall et al., 1989; Rosenkranz et al., 2012) and there is some indication that reducing shame is integral to positive treatment outcomes. Some research suggests that particular factors related to shame, specifically 'fragility and lack of control' and 'loneliness and emptiness', appear to be associated with addiction (Cook, 1987), and future research should investigate the specific antecedents and maintenance processes of these factors and the implications for substance abuse treatments. At present, some evidence suggests that shame results in vulnerability to addiction to alcohol and illicit drugs, but little understanding of how. Similarly, there is an absence of evidence relating to the age at which shame-prone adolescents are most vulnerable to substance abuse. Few studies have investigated young people exclusively, and, of the papers reviewed here, none has compared adolescents at different developmental stages. It may be that there is a point of 'greatest vulnerability' and, if so, there will be significant implications for the ways in which adolescents are educated about alcohol and illicit

substances, and preventative measures are established. In addition, the majority of the studies used samples in which females were over-represented. Future work should attempt to redress the balance by investigating the shame-substance abuse relationship in both young males and young females.

In this review, only papers relating to Western cultures were included. Although there was a clear rationale for this, given the prevalence of adolescent substance abuse in the UK and USA, there has been limited scope to investigate the shame-substance abuse relationship, or the meaning surrounding substance use, in social sub-groups. Although some studies used samples diverse in ethnicity and age, the present review has noted little that is relevant to constructs of class or religious belief. Although such factors have been investigated to only a limited degree, some research has attempted to improve our understanding of them (Rastogi & Wadhwa, 2006; Sandberg, 2010). Misusing substances may result in heightened shame only in specific groups; alternatively, certain social clusters may be more or less inclined to misuse substances. It should not be presumed that the findings of this review can be applied to all groups without further exploration of salient factors.

References

- Abramowitz, A., & Berenbaum, H. (2007). Emotional triggers and their relation to impulsive and compulsive psychopathology. *Personality and Individual Differences*, 43(6), 1356–1365.
- Adams, K. M., & Robinson, D. W. (2001). Shame reduction, affect regulation, and sexual boundary development: Essential building blocks of sexual addiction treatment. *Sexual Addiction and Compulsivity*, 8(1), 23–44.
- Andrews, B. (1995). Bodily shame as a mediator between abusive experiences and depression. *Journal of Abnormal Psychology*, 104(2), 277–285.
- Arentzen, W. P. (1978). Impact of alcohol misuse on family-life. *Alcoholism-Clinical and Experimental Research*, 2(4), 349–351.
- Arnett, J. (1995). The young and the reckless: Adolescent reckless behavior. *Current Directions in Psychological Science*, 4(3), 67–71.
- Balcom, D. (1991). Shame and violence: Consideration in couples' treatment. In K. G. Lewis (Ed.), (pp. 165–182). Birmingham, New York: The Haworth Press.
- Bennett, D. S., Sullivan, M. W., & Lewis, M. (2010). Neglected children, shame-proneness, and depressive symptoms. *Child Maltreatment*, 15(4), 305–314.
- Blume, S. B. (1990). Chemical dependency in women: Important issues. *American Journal of Drug and Alcohol Abuse*, 16(3-4), 297–307.
- Bradshaw, J. (2005). *Healing the shame that binds you*. Deerfield Beach, FL: HCI.
- Clark, A. (2012). Working with guilt and shame. *Advances in Psychiatric Treatment*, 18(2), 137–143.
- Cook, D. R. (1987). Measuring shame: The Internalized Shame Scale. *Alcoholism Treatment Quarterly*, 4(2), 197–215.
- Corrigan, P. W., Watson, A. C., & Miller, F. E. (2006). Blame, shame, and contamination: The impact of mental illness and drug dependence stigma on family members. *Journal of Family Psychology*, 20(2), 239–246.

- Dearing, R. L., Stuewig, J., & Tangney, J. P. (2005). On the importance of distinguishing shame from guilt: Relations to problematic alcohol and drug use. *Addictive Behaviors*, 30(7), 1392-1404.
- Dielman, T. E., Campanelli, P. C., Shope, J. T., & Butchart, A. T. (1987). Susceptibility to peer pressure, self-esteem, and health locus of control as correlates of adolescent substance abuse. *Health Education & Behavior*, 14(2), 207-221.
- Edwall, G. E., Hoffmann, N. G., & Harrison, P. A. (1989). Psychological correlates of sexual abuse in adolescent girls in chemical dependency treatment. *Adolescence*, 24(94), 279-288.
- Feiring, C., Deblinger, E., Hoch-Espada, A., & Haworth, T. (2002). Romantic relationship aggression and attitudes in high school students: The role of gender, grade, and attachment and emotional styles. *Journal of Youth and Adolescence*, 31(5), 373-385.
- Ferguson, T., Stegge, H., Eyre, H., Vollmer, R., & Ashbaker, M. (2000). Context effects and the (mal)adaptive nature of guilt and shame in children. *Genetic, Social, and General Psychology Monographs*, 126, 319-345.
- Fossum, M. A., & Mason, M. J. (1986). *Facing shame: Families in recovery*. New York: W.W. Norton.
- Gilbert, P. (2002). Body shame: a biopsychosocial conceptualization and overview with treatment implications. In P. Gilbert & J. Miles (Eds.), *Body shame: Conceptualization, research & treatment* (pp. 3-54). Hove, UK: Brunner-Routledge.
- Gross, C. A., & Hansen, N. E. (2000). Clarifying the experience of shame: the role of attachment style, gender, and investment in relatedness. *Personality and Individual Differences*, 28(5), 897-907.
- Gunzerath, L., Hewitt, B. G., Li, T. K., & Warren, K. R. (2011). Alcohol research: past, present, and future. *Annals of the New York Academy of Sciences*, 1216, 1-23.

- Harper, F. W. K., & Arias, I. (2004). The role of shame in predicting adult anger and depressive symptoms among victims of child psychological maltreatment. *Journal of Family Violence*, 19, 359–367.
- Hayaki, J., Friedman, M. A., & Brownell, K. D. (2002). Shame and severity of bulimic symptoms. *Eating Behaviors*, 3, 73–83.
- Institute for Alcohol Studies. (2010). *Adolescents and alcohol*. IAS.
- Jeffrey, T. B., & Jeffrey, L. K. (1991). Psychologic aspects of sexual abuse in adolescence. *Current Opinion in Obstetrics & Gynecology*, 3(6), 825–831.
- Ketelaar, T., & Au, W. T. (2003). The effects of feelings of guilt on the behavior of uncooperative individuals in repeated social bargaining games: An affect-as-information interpretation of the role of emotion in social interaction. *Cognition and Emotion*, 17, 429–453.
- Lashbrook, J. T. (2000). Fitting in: Exploring the emotional dimension of adolescent peer pressure. *Adolescence*, 35(140), 747–757.
- Lewis, M. (1995). *Shame: The exposed self*. New York: Simon & Schuster.
- Lewis, M. D. (2008). Self-conscious emotions: Pride, shame and guilt. In J. M. Haviland-Jones, P. L. F. Barrett, & M. D. Lewis (Eds.), *Handbook of emotions* (3rd ed., pp. 742–757). Guilford Press.
- Lewis, Michael. (2003). The role of the self in shame. *Social Research*, 70(4), 1181–1204.
- Lindsay-Hartz, J. (1984). Contrasting experiences of shame and guilt. *American Behavioral Scientist*, 27(6), 689–704.
- Luoma, J. B., Twohig, M. P., Waltz, T., Hayes, S. C., Roget, N., Padilla, M., & Fisher, G. (2007). An investigation of stigma in individuals receiving treatment for substance abuse. *Addictive Behaviors*, 32(7), 1331–1346.
- Mason, M. (1991). Women and shame: Kin and culture. In C. Bepko (Ed.), *Feminism and addiction* (pp. 175–194). New York: The Howarth Press.

- 421 Moretti, M. M., & Tory-Higgins, E. (1990). Relating self-discrepancy to self-esteem:
422 The contribution of discrepancy beyond actual-self ratings. *Journal of*
423 *Experimental Social Psychology*, 26(2), 108-123.
- 424 Nathanson, D. (1987). The shame/pride axis. In H. B. Lewis (Ed.), *The role of shame*
425 *in symptom formation*. Hillsdale, New Jersey: Lawrence Erlbaum Associates.
- 426 NHSIC. (2011). *Statistics on drug misuse: England*. The Health and Social Care
427 Information Centre.
- 428 O'Connor, L. E., Berry, J. W., Inaba, D., & Weiss, J. (1994). Shame, guilt, and
429 depression in men and women in recovery from addiction. *Journal of*
430 *Substance Abuse Treatment*, 11(6), 503-510.
- 431 Peñas-Lledó, E., Fernández, J. de D., & Waller, G. (2004). Association of anger with
432 bulimic and other impulsive behaviours among non-clinical women and men.
433 *European Eating Disorders Review*, 12(6), 392-397.
- 434 Potter-Efron, R. (1987). Shame and guilt: Definitions, processes and treatment issues
435 with AODA clients. *Alcoholism Treatment Quarterly*, 4(2), 7-24.
- 436 Pulakos, J. (1996). Family environment and shame: Is there a relationship? *Journal of*
437 *Clinical Psychology*, 52(6), 617-623.
- 438 Quiles, Z. N., Kinnunen, T., & Bybee, J. (2002). Aspects of guilt and self-reported
439 substance use in adolescence. *Journal of Drug Education*, 32(4), 343-362.
- 440 Rastogi, M., & Wadhwa, S. (2006). Substance abuse among Asian Indians in the
441 United States: A consideration of cultural factors in etiology and treatment.
442 *Substance Use & Misuse*, 41(9), 1239-1249.
- 443 Reed, B. G. (1987). Developing women-sensitive drug dependence treatment
444 services: Why so difficult? *Journal of Psychoactive Drugs*, 19(2), 151-164.
- 445 Reimer, M. (1996). Sinking into the ground: The development and consequences of
446 shame in adolescence. *Developmental Review*, 16, 321-363.

- 447 Rosenkranz, S. E., Henderson, J. L., Muller, R. T., & Goodman, I. R. (2012). Motivation
448 and maltreatment history among youth entering substance abuse treatment.
449 *Psychology of Addictive Behaviors*, 26(1), 171-177.
- 450 Sandberg, S. (2010). "The sweet taste of sin"—A Muslim drug dealer in a Nordic
451 welfare state. *Journal of Scandinavian Studies in Criminology and Crime*
452 *Prevention*, 11(2), 103-118.
- 453 Stuewig, J., & McCloskey, L. A. (2005). The relation of child maltreatment to shame
454 and guilt among adolescents: Psychological routes to depression and
455 delinquency. *Child Maltreatment*, 10(4), 324-336.
- 456 Talbot, J. A., Talbot, N. L., & Tu, X. (2004). Shame-proneness as a diathesis for
457 dissociation in women with histories of childhood sexual abuse. *Journal of*
458 *Traumatic Stress*, 17(5), 445-448.
- 459 Tangney, J. P., & Dearing, R. L. (2002). *Shame and guilt*. New York: Guildford.
- 460 Tangney, June P. (1990). Assessing individual differences in proneness to shame and
461 guilt: Development of the Self-Conscious Affect and Attribution Inventory.
462 *Journal of Personality and Social Psychology*, 59(1), 102-111.
- 463 Tangney, June P., Wagner, P., & Gramzow, R. (1992). Proneness to shame, proneness
464 to guilt, and psychopathology. *Journal of Abnormal Psychology*, 101(3), 469-
465 478.
- 466 Tangney, June Price, Miller, R. S., Flicker, L., & Barlow, D. H. (1996). Are shame, guilt,
467 and embarrassment distinct emotions? *Journal of Personality and Social*
468 *Psychology*, 70(6), 1256-1269.
- 469 Wicker, F. W., Payne, G. C., & Morgan, R. D. (1983). Participant descriptions of guilt
470 and shame. *Motivation and Emotion*, 7, 25-39.
- 471 Zahn-Waxler, C., Radke-Yarrow, M., Wagner, E., & Chapman, M. (1992). Development
472 of concern for others. *Developmental Psychology*, 28(1), 126-136.
- 473

Table 1 (on next page)

Selected papers

Table 1 - Papers selected for review

Authors & Title	Year	Research Aim	Measures	Sample	n	Findings	Evaluation
Abramowitz, A., & Berenbaum, H. Emotional triggers and their relation to impulsive and compulsive psychopathology.	2007	Emotional triggers as a predictor of impulsive-compulsive behaviours	BIS-11, OCI	College Students	189	Anger & shame predict I-C pathology	Correlational study
Dearing, R. L., Stuewig, J., & Tangney, J. P. On the importance of distinguishing shame from guilt: Relations to problematic alcohol and drug use.	2005	Clarifying the role of shame and guilt in substance abuse	MCMI & TOSCA	Students & inmates	816	Shame correlates with substance abuse in both samples	Correlation
Table 1 - Included articles							
Edwall, G. E., Hoffmann, N. G., & Harrison, P. A. Psychological correlates of sexual abuse in adolescent girls in chemical dependency treatment.	1989	Psychopathology & self-concept in victims of sexual abuse	Interviews by counsellors	Adolescent females	597	Sexual abuse & shame are common in substance abuse	Limited data re: severity of abuse
Lashbrook, J. T. Fitting in: Exploring the emotional dimension of adolescent peer pressure.	2000	Emotions and conformity	Qualitative	College students	12	Facets of shame motivate individuals to drink alcohol with peers	Small sample; Retrospective

Quiles, Z. N., Kinnunen, T., & Bybee, J. Aspects of guilt and self-reported substance use in adolescence.	200 2	The relationship between guilt and adolescent substance abuse	TOSCA, GI, MFCGI, PFQ2	Students	230	Substance abusers have weaker internalisation of societal standards	Retrospective, self-report data Focus on guilt
Rosenkranz, S. E., Henderson, J. L., Muller, R. T., & Goodman, I. R. Motivation and maltreatment history among youth entering substance abuse treatment.	201 2	The relationship between maltreatment and motivation to change	SOCRATES, TEQ, TAQ, AUDIT, DAST, PSS	16-24 year-old substance abusers	188	Shames is associated with substance use	89% positive response rate Self-reported maltreatment
