Social Science & Medicine 211 (2018) 183–189

Contents lists available at ScienceDirect

Social Science & Medicine

journal homepage: www.elsevier.com/locate/socscimed

Loneliness as a mediator of the relationship between shame and health problems in young people exposed to childhood violence

Siri Thoresen[a,*], Helene Flood Aakvaag[a], Ida Frugård Strøm[a], Tore Wentzel-Larsen[a,b], Marianne Skogbrott Birkeland[a]

[a] Norwegian Centre for Violence and Traumatic Stress Studies, Gullhaugveien 1-3, 0484 Oslo, Norway
[b] Centre for Child and Adolescent Mental Health, Eastern and Southern Norway, Gullhaugveien 1-3, 0484 Oslo, Norway

ARTICLE INFO

Keywords:
Norway
Shame
Loneliness
Mental health
Physical health
Violence
Causal mediation analysis

ABSTRACT

Rationale: Shame related to childhood violence can be detrimental to mental and physical health. Shame may erode social bonds.
Objective: In this study we tested whether loneliness is an important pathway between violence-related shame and health problems.
Method: Individuals who reported exposure to childhood violence in a telephone interview survey in 2013 (wave one) were re-contacted 12–18 months later (wave two), as part of a more general survey of the Norwegian adult population. In total, 505 adolescent and young adult participants (mean age = 21 years) responded to questions about violence exposure, violence-related shame, loneliness, anxiety/depression symptoms, and somatic health complaints. We used counterfactually based causal mediation analysis within the structural equation modelling framework to test whether loneliness mediated a potential association between shame and health.
Results: Shame had a profound effect on anxiety/depression symptoms and we identified both direct and indirect effects. Loneliness mediated about one third of the relationship between shame and anxiety/depression symptoms. The relationship between shame and somatic health complaints was weaker in total, but this more modest effect largely occurred indirectly through loneliness.
Conclusions: Our results add to the literature by highlighting the role of loneliness in the relationship between shame and health. Shame may have the potential to break down social connectedness, with a detrimental effect on health. Clinicians may find it helpful to pay close attention to the way shame regulates social interaction. Preventing social isolation and loneliness may promote good health in violence victims.

1. Introduction

Violence in childhood is detrimental to mental and physical health (A. Caspi et al., 2003; Chen et al., 2010; Fuh et al., 2010; R. Gilbert et al., 2009). Understanding the pathways between childhood violence and poor adult health will enable us to better design and target prevention and treatment measures. A common response to violence is shame, which in turn is closely connected to mental health. Violence-related shame may result in social withdrawal, hiding, and loss of trust in others, all of which can lead to loneliness. In this study, we propose that one important pathway between violence-related shame and health is via loneliness.

1.1. Childhood violence, health, and shame

Unfortunately, violence against children is not uncommon in the general population (Briere and Elliott, 2003). Violence is a multi-faceted phenomenon, and may include physical violence, sexual abuse, psychological/emotional violence, and neglect (WHO, 2002). The negative health effects of violence are not restricted to specific disorders. Rather, victims of childhood violence seem to be at risk of developing a broad spectrum of mental and physical problems (A. Caspi et al., 2003; Chen et al., 2010; Felitti et al., 1998; Green et al., 2010; Noll et al., 2003; Trickett et al., 2011). Although there is a strong relationship between childhood violence and adult health, the mechanisms involved are unclear. Potential mechanisms include health-risk behavior such as smoking or drug and alcohol use, genetic factors, and changes in stress-

* Corresponding author. Norwegian Center for Violence and Traumatic Stress Studies, Gullhaugveien 1-3, 0484 Oslo, Norway.
E-mail addresses: siri.thoresen@nkvts.no (S. Thoresen), h.f.aakvaag@nkvts.no (H.F. Aakvaag), i.f.strom@nkvts.no (I.F. Strøm), tore.wentzel-larsen@nkvts.no (T. Wentzel-Larsen), m.s.birkeland@nkvts.no (M.S. Birkeland).
URLS: http://www.nkvts.no, http://www.nkvts.no/ansatt/siri-thoresen/ (S. Thoresen).

https://doi.org/10.1016/j.socscimed.2018.06.002
Received 19 December 2017; Received in revised form 24 May 2018; Accepted 8 June 2018
Available online 18 June 2018
0277-9536/

response systems, as well as cognitive and emotional responses to the violent events. Shame is one emotional response to violence that may be particularly important for health.

Shame can be defined as "a painful affect, often associated with perceptions that one has personal attributes, personality characteristics or has engaged in behaviors that others will find unattractive and that will result in rejection or some kind of put-down" (P. Gilbert, 2000b). Shame is one of the nine basic affects recognized by Tomkins (1963), who considered shame to have important functions in the human affective system. Several empirical studies have documented that shame is a common response to trauma and interpersonal violence and to highly stigmatized phenomena such as sexual abuse (Amstadter and Vernon, 2008). All types of severe violence, both in childhood and in adulthood, seem to be associated with shame, in a dose-response-like fashion (Aakvaag et al., 2016). Why violence and abuse often induce shame in exposed individuals is unclear. Violent events may leave the victim feeling belittled and inferior, attributes that could be perceived as undesirable and unattractive by themselves and by others, which may in turn lead to mental and physical health problems.

Previous studies demonstrate a robust association between shame and mental health problems, particularly PTSD and depression (Kim et al., 2011; Saraiya and Lopez-Castro, 2016), but also eating disorders, externalizing and internalizing problems, and social anxiety (P. Gilbert, 2000a; Muris and Meesters, 2014). Trauma-related shame may be associated with a variety of mental health problems due to shame-based negative appraisals, rumination, and hopelessness (Ehlers and Clark, 2000; La Bash and Papa, 2014). Shame, as conceptualized as a threat to the social self (Budden, 2009), is thought to elicit a psychobiological response, with physiological and immunological changes that may lead to decreased resistance to diseases over time (Kemeny et al., 2004). Though less well researched than the association between shame and mental health, shame has also been found to associate with pain (Keefe et al., 2001; Lumley et al., 2015) and poor physical health (Dickerson et al., 2004). Thus, previous research has established links between violence, shame, and health. In the following, we will explore the potential role of loneliness in the relationship between shame and health.

1.2. Shame and loneliness

Shame relates to negative evaluations of the self, and may lead to hiding, disengagement, and withdrawal. Violence-related shame may therefore hinder disclosure of the violent experience, and lead to decreased utilization of available social support, making the individual feel lonely or isolated (Rostami and Jowkar, 2016). Individuals who experience shame may be concerned about social evaluation and potential rejections or put-downs, and find it difficult to trust others, leading them to withdraw from social interactions (Kaufman, 2004). With his concept 'the shame compass', Nathanson (1992) described four coping responses to shame, that all may affect social relationships, namely, withdrawal, avoidance, attack others, and attack self. Traumatized individuals who feel shame about what happened tend to have negative expectations of social networks (Dodson and Beck, 2017) or feel unworthy in relationships (Hartling et al., 2004), potentially resulting in avoidance of new social opportunities.

The relationship between shame and loneliness has not been thoroughly investigated, but shame has been found to associate with reduced perceived social support (Chow and Cheng, 2010), with a fear of intimacy (Lutwak et al., 2003) and loneliness (Rostami and Jowkar, 2016). Loneliness has been described as a set of feelings that occur when intimate and social needs are not adequately met (Cacioppo et al., 2006). In their social-evolutionary model of loneliness, Cacioppo and colleagues argue that social connectedness is key to the survival of one's offspring, and that the pain or discomfort of loneliness is a response to the vulnerability that arises from separation or disconnection from social bonds. Loneliness is not the same as being alone (McWhirter, 1990), although it occurs more often in individuals who lack or have lost a partner, have few social roles, or belong to a marginalized group (Cacioppo et al., 2010; Hawthorne, 2008; Meltzer et al., 2013). Lonely individuals can feel unprotected and have a heightened sensitivity to threats and attacks, which may increase hostility, defensiveness, and depression, and decrease their sense of control.

Loneliness is related to a variety of mental and physical symptoms, such as depression, anxiety, personality disorders, impaired sleep, migraine, elevated blood pressure, and cardiovascular disease (Cacioppo et al., 2010; Avshalom Caspi et al., 2006; Christiansen et al., 2016; Meltzer et al., 2013; Mushtaq et al., 2014). The causal directions are not clear, although several longitudinal studies have demonstrated that loneliness can precede and predict changes in health (Cacioppo et al., 2010; Avshalom Caspi et al., 2006; Eaker et al., 1992; Olsen et al., 1991; Shiovitz-Ezra and Ayalon, 2010). In addition, social connectedness can be both protective and curative against mental health problems such as depression (Cruwys et al., 2013).

1.3. Knowledge gap and aims

Associations between violence victimization, shame, and health, particularly mental health, are well established. However, the social aspects of shame have been largely ignored in the literature. Therefore, if social isolation or loneliness is an important pathway between shame and health, it could have important consequences for clinical interventions and prevention measures, and the need to pay closer attention to social processes following exposure to adverse events has been called for (Bryant, 2016). We are aware of only one previous study that explores loneliness as a potential link between shame and health, a cross-sectional study of sexual minorities (Mereish and Poteat, 2015); in this study, shame was associated with mental and physical symptoms both directly and indirectly through poorer relationships and loneliness. In the present study, we had the opportunity to investigate the relationships between these factors in 505 individuals exposed to childhood violence drawn from a large community sample in Norway.

The aim of this study was to investigate the relationships between shame, loneliness, and health in young adult victims of childhood violence. More specifically, we tested the hypothesis that the effect of shame on mental and physical health in victims of violence can be mediated by loneliness.

2. Method

2.1. Participants and procedures

This is a follow-up study (T2) of a sub-sample of violence exposed individuals from a population study (T1) conducted in 2013. The baseline survey included an adult sample and an adolescent sample (16–75 years, $N = 6{,}689$) drawn from the General Population Registry of Norway. The participants at T1 received a letter informing them about the study before they were contacted and interviewed over the phone. The response rate was 61.7% for the youth sample and 42.9% for the adult sample. More details are published elsewhere (Thoresen et al., 2015).

T2 data were collected 12–18 months after the baseline survey (2014–2015). Of the participants from the population study who had agreed to be re-contacted (88.6%, $N = 5838$), the youngest participants (aged 17–33 years, $n = 2549$), were attempted to be contacted. The youngest participants were contacted first and the recruitment continued with participants of increasing age, until a quota of 500 respondents was obtained from the violence-exposed group (cases) and the non-exposed group (controls) who were selected based on matching age and gender. About half of the contacted sample ($n = 1{,}325$) were unreachable because of technical errors, no answer, incorrect registration information, or incorrect telephone number, or international relocation or travelling. Of the 1,224 individuals who answered the phone, 1,011 (82.6%) participated, comprising 39.7% of the