BSc in Psychology
Department of Psychology

Subjective Well-Being and Resilience among Adolescents after Exposure to Violence: Resilience as a Mediator

June, 2021

Student: Unnur Kaldalóns Sigurðardóttir

ID number: 190896 - 2269

Foreword

Submitted in partial fulfillment of the requirements of the BSc Psychology degree, Reykjavik University, this thesis is presented in the style of an article for submission to a peer-reviewed journal.

This thesis was completed in the Spring of 2021 and may therefore have been significantly impacted by the COVID-19 pandemic. The thesis and its findings should be viewed in light of that.

Abstract

Subjective well-being (SWB) is the most used type of well-being in psychology. SWB relates to how people determine for themselves what they consider a good life. Research indicates that adolescence can be difficult and stressful times, which can negatively affect well-being. Traumas can lead to less well-being but there is also a protective factor, resilience, which can increase well-being. The aim of this study was to examine the relation between subjective well-being, violence, resilience, and gender. Data from *Youth in Iceland* from 2016, conducted by Icelandic Centre for Social Research & Analysis (ICSRA) was used in this study, with a random sample of 2,165 adolescents. Results showed that victims of violence had a significantly lower SWB than non-victims. Female victims also had lower SWB than male victims. Participants that had high resilience had higher SWB. Males with both low and high resilience, had higher SWB than females. Results also indicate that resilience has a mediating effect on the relationship between SWB and violence. In conclusion, experiencing violence led to lower SWB among participants. However, resilience is a protective factor for participants after experiencing violence.

Keywords: subjective well-being, violence, resilience, adolescents

Útdráttur

Huglæg vellíðan er mest notaða skilgreiningin á vellíðan. Huglæg vellíðan mælir hvernig einstaklingur metur sitt eigið líf og hversu ánægður hann er með það. Rannsóknir sýna að unglingsárin geta verið erfiðir og streituvaldandi tímar, sem getur haft áhrif á þeirra vellíðan. Áföll geta leitt til minni vellíðunar, en vernandi þátturinn, seigla, getur aukið vellíðan þeirra. Markmið þessarar rannsóknar var að vekja athygli á sambandinu milli huglægrar vellíðunar, ofbeldis og seiglu. Einnig var kynjamunur skoðaður. Gögn frá rannsókninni Ungt fólk frá 2016 sem framkvæmd var af Rannsókn & Greiningu voru notuð og var slembiúrtak af 2165 þátttakendum notað í þessari rannsókn. Niðurstöður leiddu í ljós að þolendur ofbeldis voru með lægri huglæga vellíðan en þeir sem höfðu ekki upplifað ofbeldi. Stelpur sem voru þolendur ofbeldis voru einnig með lægri huglæga líðan en strákar sem voru þolendur ofbeldis. Þeir þátttakendur sem voru með hærri seiglu voru með hærri huglæga vellíðan. Strákar með bæði lága og mikla seiglu, höfðu hærri huglæga vellíðan en stelpur. Niðurstöður leiddu einnig í ljós að seigla var miðlunarbreyta í sambandinu milli huglægrar vellíðunar og ofbeldis. Að lokum, að upplifa ofbeldi leiddi til lægri huglægrar vellíðunar fyrir þátttakendur. Hinsvegar hefur seigla verndandi áhrif á huglæga vellíðan eftir ofbeldi.

Lykilorð: huglæg vellíðan, ofbeldi, seigla, ungmenni

Subjective Well-Being and Resilience among Adolescents after Exposure to Violence: Resilience as a Mediator

Adolescence, the age from 10 to 19 years, the period between childhood and adulthood (World health Organization [WHO], n.d.-a), can be very difficult for people because of many changes (WHO, n.d.-a), such as biological changes, emotional distress, sometimes traumas, and changes in the relationship with parents, which all can affect well-being (Paikoff & Brooks-Gunn, 1991).

Subjective Well-Being

There are many types of well-being in studies, individuals can for example have physical well-being, social well-being, and financial well-being (Hefferon & Boniwell, 2011). Subjective well-being (SWB) is the most studied type of well-being (Diener, 2009). Subjective well-being relates to how people determine for themselves what is a good life (Diener, 2009). That means that the individuals themselves evaluate how their life has turned out (Hefferon & Boniwell, 2011). Subjective well-being includes three parts: Life satisfaction, negative affect, and positive affect (Joshi, 2010). Life satisfaction is how a person estimates his or her life as a whole and represents a wide appraisal. Positive affect includes interests, and pleasurable moods or emotions such as affection and joy. Negative affect includes unpleasant emotions and negative exposure to experiences that for example negatively affect people's health or lives. Examples are emotions like sadness or anger, or experiencing stress or anxiety (Joshi, 2010). Therefore, people who have depression, post-traumatic stress disorder, or deal with anxiety have lower subjective well-being (Leserman, 2005).

Many studies have examined what factors are related to subjective well-being. Ingelhart (2002) and Joshi (2010) researched gender difference in subjective well-being. The results indicated that there was no notable difference between genders when subjective well-

being was explored. However, numerous other factors were related to subjective well-being (Diener, 2009). For example, life events, age, friendships, love, self-esteem, personality, and biological factors. All these factors can increase and decrease subjective well-being depending on how importance the factor is in one's life (Diener, 2009).

Diener (2000) claimed that individuals who have a higher level of subjective well-being are more able to multitask, are more optimistic, live longer, are less vulnerable to illnesses, less hostile, and less self-centered. Because of how difficult and stressful adolescence can be, it is important to have in mind what factors can lead to better well-being for adolescents and what factors can reduce their well-being (Herman-Stahl & Petersen, 1996).

Sexual and Physical Violence

Children and adolescents are unfortunately quite commonly exposed to violence (Kann et al., 2018). Studies on sexual violence have shown that most female victims of sexual violence first experience it before they reach the age of 25 years, and almost half experience sexual violence before they reach the age 18 years (Black et al., 2011; Smith et al., 2018). Just over half of male victims also experience their first sexual violence before they reach the age of 18 years (Smith et al., 2018). The World Health Organization (n.d.-b, pp. 149) defines sexual violence as:

> Any sexual act, attempt to obtain a sexual act, unwanted sexual comments, or advances, or acts to traffic, or otherwise directed, against a person's sexuality using coercion, by any person regardless of their relationship to the victim, in any setting, including but not limited to home and work. (WHO, n.d.-b, pp. 149)

Stoltenborgh et al. (2011) reported that the prevalence of sexual violence was 18% among females and 7.6% among males. However, it is important to have in mind that males are less likely to reveal victimization of violence (Holmes et al., 1997; Javaid, 2014). In a study by

Kann et al. (2018), results showed that 7.4% of children and adolescents had been sexually abused in their lifetime.

Studies on sexual violence have shown than exposure to sexual violence can lead to multiple negative consequences. Such as, affected their well-being and lead to behavioral and health problems, for example depression (Olafson, 2011; Stoltenborgh et al., 2011). In a study by Barnum and Perrone-McGovern (2017) of 217 students revealed that approximately 34% of participants had experienced sexual violence during their childhood. The participants who had experienced sexual violence in their childhood also reported lower subjective well-being in their adult life (Barnum & Perrone-McGovern, 2017).

Physical violence is another type of violence, defined as any physical strength that puts an individual's health in danger, or injures the individual (The Office on Women's Health, 2018). Physical abuse can happen in many forms, for example, hitting, kicking and hair-pulling, leading to physical damage (The Office on Women's Health, 2018). Finkelhor et al., (2005) found that 1 in 10 children have suffered physical violence in the United States. Physical violence can affect children's subjective well-being, for example it can lead to mental health consequences like increased anxiety, depression, and the risk of self-injury (Hillis, et al., 2017).

Mahuteau and Zhu (2015) examined the effect of physical violence on subjective well-being. The study consisted of 18,460 participants. Participants were asked if they had been victims of physical violence and the results suggested that approximately 8% of the participants had been victims of physical violence. Participants who had suffered from physical violence had significantly lower subjective well-being than those who had never experienced physical violence (Mahuteau & Zhu, 2015).

Resilience

Even though violence can have negative consequences for adolescents' subjective well-being, some protective factors have been identified that can increase subjective well-being for individuals that have been exposed to violence, such as resilience (Werner, 1993). Resilience has been defined as the "flexibility in response to changing situational demands, and the ability to bounce back from negative emotional experiences" (Tugade et al., 2004, pp. 1168). Individuals who are resilient often have deep beliefs that life is meaningful, and that they can adapt and improvise when there is a notable change, and they are better able to accept reality even though it is difficult (Coutu, 2002, as referred to in Kirmani et al., 2015). Environmental factors, biological factors, and personal factors have been found that contribute to resilience (Herrman et al., 2011). Environmental factors refer to social support that one receives, such as relationships with family and peers. Biological factors are for example differences in neural networks and brain size, and personal factors are for example agreeableness, openness, optimism, and self-efficacy (Herrman et.al., 2011). Therefore, resilience is within individuals, but can be developed and it can help individuals cope with traumas and adversity (Atkinson, 2015).

In a study by Kirmani et al. (2015) on resilience and subjective well-being among 98 female adolescents, results revealed a positive association between resilience and subjective well-being. This indicates that individuals who are resilient face adversity in a more positive and efficient way and can therefore be happier, which has a good effect on their subjective well-being. More studies have shown that increased resilience is associated with more subjective well-being (Inglehart, 2002; Tomyn & Weinberg, 2016). A small to no difference has been found in subjective well-being and resilience between genders, although age, income and different coping strategies are associated with people's subjective well-being and resilience (Gryl et al., 1991; Inglehart, 2002; Myers & Diener, 1995; Tomyn & Weinberg,

2016). Due to previously mentioned studies on the protective function of resilience, it seemed suitable for this study to select resilience as a mediator between violence and subjective well-being.

The Current Study

As stated above, experiencing trauma, like physical or sexual violence, can lead to lower subjective well-being for individuals. In addition, individuals who are more resilient have increased subjective well-being. Therefore, this current study aimed to explore the relation between subjective well-being, violence, and resilience. In addition, it aimed to examine gender differences in subjective well-being following exposure to violence, as well as the prevalence of experiencing violence among adolescents in Iceland. Therefore, the following hypotheses will be put to the test: 1) History of violence leads to decreased subjective well-being for participants. 2) Female victims of violence report lower subjective well-being than male victims. 3) More resilience leads to higher subjective well-being, for both genders. 4) Resilience mediates the relationship between violence and subjective well-being.

Method

Participants

Participants in the research Youth in Iceland were students in high schools in Iceland. Youth in Iceland is a population study which was conducted in 2016 by the Icelandic Centre for Social Research & Analysis (ICSRA). A total of 10,717 participants answered the survey and the response rate was 71% (Pálsdóttir et al., 2016). The current study used a random sample thereof, consisting of 2,165 participants. The age ranged from 15 to 21 years. Gender ratio in the random sample was even, there were 48.9% (N = 1,058) male and 49.5% (N = 1,071) female participants, and 36 individuals who did not reveal their gender. Guardians received a letter which explained the study and they were asked for a permission so their

child under 18 years old could participate. Therefore, participants were not forced to participate in the study and they did not receive rewards for participating.

Measures

This current study is a cross-sectional study based on responses from adolescents to a questionnaire from the Youth in Iceland 2016 study conducted by the Icelandic Centre for Social Research & Analysis (ICSRA). The study consisted of 85 questions on 32 pages regarding well-being, drug use, family history, bullying, violence, body image and physical and mental health. Questions from the questionnaire used in this study were questions regarding gender, sexual and physical violence, resilience, and subjective well-being.

Gender

One question was used to ask participants about their gender. The question was: "Are you a boy or a girl?". The answer options were "*Boy*" and "*Girl*".

Subjective Well-being

Subjective well-being is the most common form of well-being that is used now a days in studies. However, subjective well-being is measured by different scales in studies (Robinson, 1991). In this current study, subjective well-being was measured by how participants evaluated how they felt regarding their physical and mental health with two questions: "How good is your mental health?", and "How good is your physical health?", both with the same answer options on a four-point ordinal scale (1 = *Bad,* 2 = *Fair,* 3 = *Good,* 4 = *Very good)*. These two questions were computed together by calculating the mean of both questions, creating a new variable with a minimum score of 1 and a maximum score of 4.

Violence

One question was used to measure if participants had experienced physical violence. The question was "Have you been the victim of physical violence in the past 12 months?".

The answers were on a six-point ordinal scale from "*Never*" to "*More than 20 times*" (1 = *Never,* 2 = *1 time,* 3 = *2-5 times,* 4= *6-9 times,* 5 = *10-13 times,* 6 = *14-17 times,* 7 = *More than 18 times*). Before the data analysis, the response "Never" got the value 0 and the other responses were combined and got the value 1.

Two questions were used to measure sexual violence: "Have you been sexually abused by a non-adult" and "Have you been sexually abused by an adult". The possible answers for these questions were on a four-point ordinal scale from "*Yes, in the last 30 days*" to "*No*" (1= *Yes, in the last 30 days,* 2 = *Yes, in the last 12 months,* 3 = *Yes, more than 12 months ago,* 4 = *No).* Before the data analysis, the response "*No*" got the value 0 and the other responses, "*Yes, in the last 30 days", "Yes, in the last 12 months",* and *"Yes, more than 12 months ago"* were combined and got the value 1.

The question about physical violence and the two questions about sexual violence, were then combined and got the name violence. The violence variable was recoded into a two-point nominal scale: 0 = *Did not experience any kind of violence*, 1 = *Did experience violence*.

Resilience

The Connor-Davidson Resilience Scale (CD-RISC-10) was used to measure resilience. The scale is considered a valid measurement of resilience because of its reliability and internal consistency (Connor & Davidson, 2003). Each participant was asked one question which consisted of ten statements. The question was: "How often or rarely do the following statements apply to you?". The statements were: "I am able to adapt when changes occur", "I can deal with whatever comes my way", "I try to see the humorous side of things when I am faced with problems", "Having to cope with stress can make me stronger", "I tend to bounce back after illness, injury or other hardship", "I believe I can achieve my goals, even if there are obstacles", "Under pressure, I stay focused and think clearly", "I am not easily

discouraged by failure", "I think of myself as a strong person when dealing with life's challenges and difficulties" and "I am able to handle unpleasant or painful feelings like sadness, fear and anger". The answers were on an ordinal scale from "*Not true at all*" to "*True nearly all the time*" (1 = *not true at all,* 2 = *rarely true,* 3 = *sometimes true,* 4 = *often true,* 5 = *true nearly all the time)*. The statements were combined into one variable where the lowest score was "1" and the highest score was "5". Those with higher score had more resilience than those with low scores. For hypothesis three, the resilience variable was divided into three categories, depending on participants' resilience. "Not true at all" and "rarely true" got the value "1" and reflected low resilience. "Sometimes true" got the value "2" and represented medium resilience. "Often true" and "true nearly all the time" got the value "3" and represented high resilience. The internal reliability (Cronbach's alpha) for resilience was $\alpha = .93$.

Procedure

Data was collected by questionnaires which were anonymous in all high schools in Iceland in the fall of 2016. Teachers in each school conducted the study for ICSRA. Students that attended school the same day that the questionnaire was conducted were offered to participate. Each participant was asked to answer the questionnaire to their best ability and with consciousness. Anonymity was maintained and the conductors also reminded the participants not to write their names or their ID numbers on their response sheets, so that the data would not be traceable. With the questionnaire came an envelope and the students were asked to seal their answers when they had answered the questionnaire. The teachers collected the envelopes and transmitted the data for further processing (Pálsdóttir et al., 2016).

Before this current study proceeded any further, an application, regarding permission to proceed with the study and permission to use the data, was applied for from the National

Bioethics Committee in Iceland. Permission was granted from the National Bioethics Committee and ICSRA for usage of the data in this current study.

Research Design and Data Analysis

This current study was a quantitative cross-sectional study. The dependent variable was subjective well-being, and the independent variables were sexual violence, physical violence, gender, and resilience. The statistical program IBM SPSS Statistics, version 27, was used for data processing and analyzing. Descriptive statistics were generated for the study's variables, Pearson's correlations were generated to analyze bivariate linear relationships between the variables, and independent samples t-tests were performed to determine mean differences in subjective well-being and resilience by gender.

Independent factorial design (FANOVA) was used for the first and second hypothesis. The first hypothesis stated that a history of violence leads to decreased subjective well-being for participants. The assumption of homogeneity of variance for FANOVA was met according to the Levene's test of equality of error variances. The second hypothesis stated that female victims of violence reported lower subjective well-being than male victims. The assumption of homogeneity of variance for FANOVA was met according to the Levene's test of equality of error variances. FANOVA was also conducted for the third hypothesis, stating that more resilience leads to higher subjective well-being, for both genders. The assumption of homogeneity of variances for FANOVA was met according to the Levene's test of equality of error variances. The Hayes Process macro tool (Hayes, 2017) was used to analyze the fourth and final hypothesis, stating that resilience mediates the relationship between violence and subjective well-being. A mediation analysis is used to describe a causal chain. It assumes that the effect of the independent variable on the dependent variable is conveyed by a third variables, the mediator (Pardo & Román, 2013).

Results

Table 1 illustrates descriptive statistics for subjective well-being and resilience. Participants had on average high subjective well-being ($M = 3.19$), with males having higher subjective well-being ($M = 3.34$, $SD = 0.75$) than females ($M = 3.05$, $SD = 0.80$). Participants had high resilience ($M = 4.01$), with males reporting more resilience ($M = 4.14$, $SD = 0.84$) than females ($M = 3.90$, $SD = 0.81$). Independent samples t-tests showed a significant mean difference between subjective well-being, $t(2072) = 8.77$; $p < 0.001$, and resilience, $t(1930) = 6.52$; $p < 0.001$, by gender.

Table 1

Descriptive Statistics for Subjective Well-Being and Resilience

		N	*M*	*SD*	Min	Max
1	SWB	2,099	3.19	0.79	1.00	4.00
	Males	1,018	3.34*	0.75	1.00	4.00
	Females	1,058	3.05	0.80	1.00	4.00
2	Resilience	1,951	4.01	0.84	1.00	5.00
	Males	929	4.14*	0.86	1.00	5.00
	Females	1,003	3.90	0.81	1.00	5.00

Note. * Mean difference is significant at the .001 level; *N* = Number of participants; *M* = Mean; *SD* = Standard Deviation; SWB = Subjective Well-being.

Table 2 presents Pearson correlations between subjective well-being, violence, and resilience. Subjective well-being was associated with increased resilience ($p < .001$). Violence was related to decreased subjective well-being ($p < .001$) as well as decreased resilience ($p < .001$).

Table 2

Pearson Correlation for the Independent and Dependent Variables

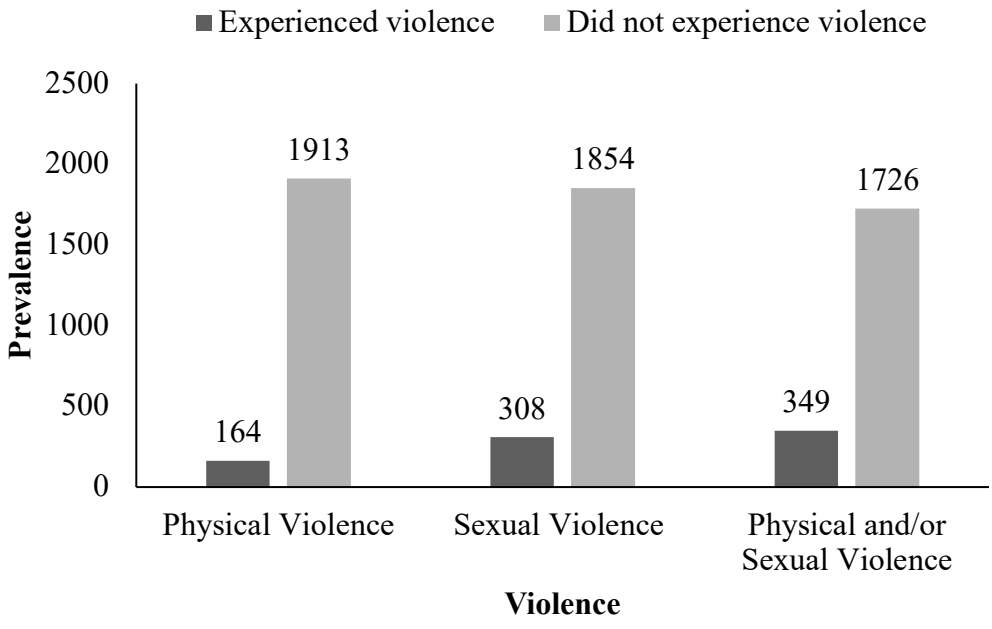
		1	2	3
1.	Subjective Well-being	1	.36**	-.21**
2.	Resilience		1	-.12**
3.	Violence			1

Note. **Correlation is significant at the .01 level

Figure 1 shows the prevalence of experiencing sexual- and/or physical violence. Participants who had been exposed to physical violence were 7.6% (N = 164) and participants who had been exposed to sexual violence were 14.2% (N = 308). Therefore, sexual violence seemed more common than physical violence. In total, 16.1% (N = 349) of participants had been exposed to sexual and/or physically violence. More females (10.1%, N = 208) were victims of violence than males (6.43%, N = 132).

Figure 1

Prevalence for the Variables Physical Violence, Sexual Violence and Physical and/or Sexual Violence



To test the first two hypotheses, independent factorial design (FANOVA) was conducted. The first hypothesis stated that a history of violence leads to decreased subjective well-being for participants. The second hypothesis stated that female victims of violence report lower subjective well-being than male victims. The main effect for violence was significant, $F(1, 2041) = 71.45$; $p < .001$, with violence victims reporting less subjective well-being ($M = 2.83$, $SD = .86$) than non-victims ($M = 3.26$, $SD = .75$). The main effect for gender was also significant, $F(1, 2041) = 48.47$; $p < .001$. Females who had experienced violence reported lower subjective well-being ($M = 2.67$, $SD = .82$) than males who had been victims of violence ($M = 3.07$, $SD = .87$). The interaction effect was not significant between gender and violence, $F(1, 2041) = 2.53$; $p = .112$. Figure 2 shows the subjective well-being of participants by their gender and whether they have experienced violence or not. The participants subjective well-being was lower for both females ($M = 2.67$) and males ($M = 3.07$) if they had experienced violence. However, the males who had experienced violence had higher subjective well-being then the females that had experienced violence.

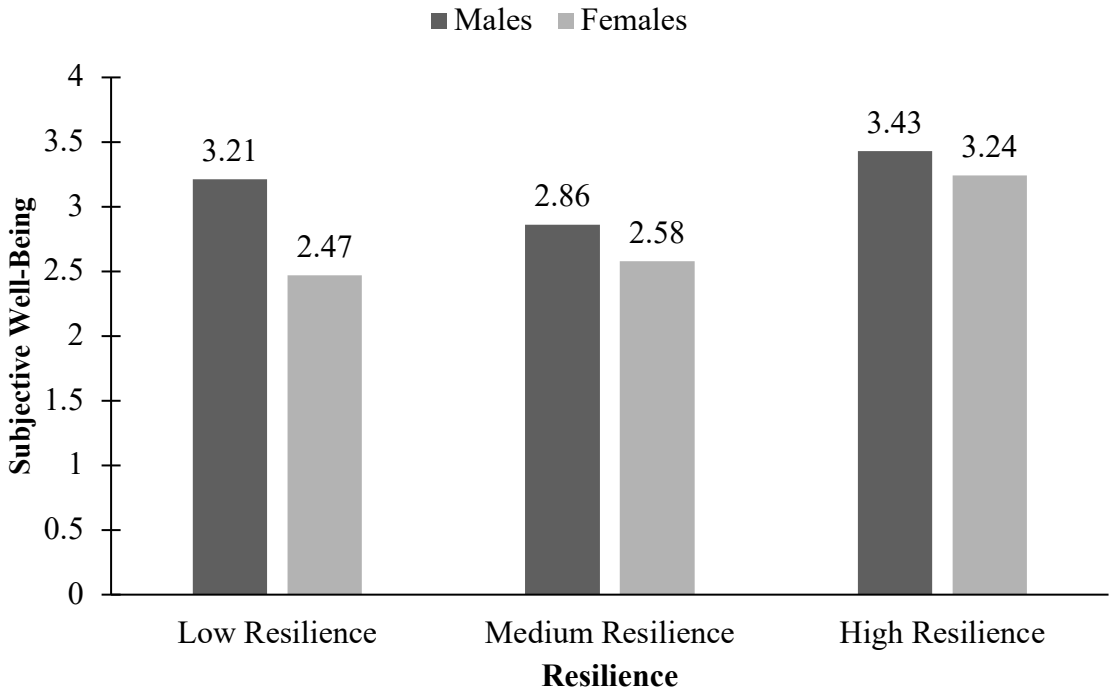
Figure 2

Means of Participants Subjective Well-Being Depending on their Gender and if they have Experienced Violence or not

To test hypothesis three that stated, more resilience leads to higher subjective well-being, for both genders, another independent factorial design (FANOVA) was conducted to analyze the difference in subjective well-being by resilience and gender. Figure 3 illustrates gender differences in subjective well-being, depending on their resilience. For males, a significant main effect was found for resilience, $F(2, 921) = 18.20$, $p < .001$; with males higher in resilience reporting increased subjective well-being. A significant main effect was also found for resilience among females, $F(2, 1000) = 45.00$, $p < .001$; with females higher in resilience reporting increased subjective well-being.

Figure 3

Gender Difference in Subjective Well-Being, Depending on Participants' Resilience

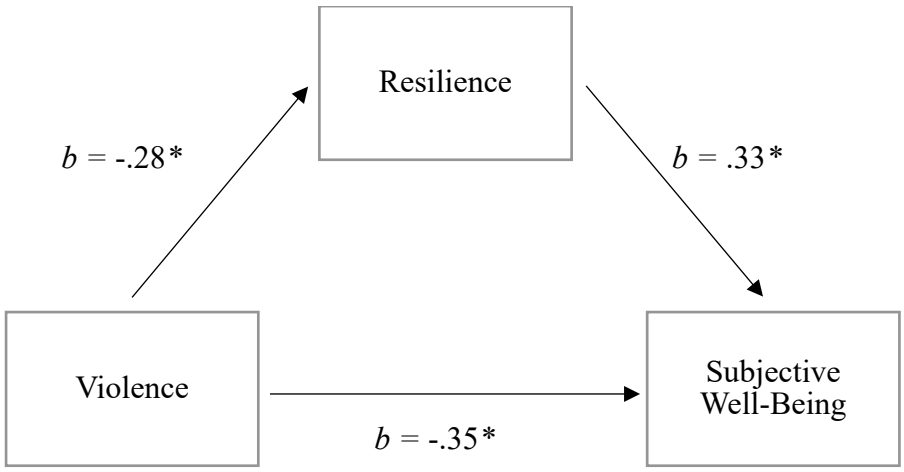


To test hypothesis four, pertaining to the mediator role of resilience between violence and subjective well-being, the Hayes process macro for SPSS (Hayes, 2017) was used. Figure 4 illustrates the relationship between violence and subjective well-being, with resilience as a mediator. A significant total effect was found between violence and subjective well-being, $b = -.45$, $t = -9.28$, $p < .001$. Hence, when resilience was not in the model, violence

significantly affected subjective well-being. The negative indirect effect between violence on subjective well-being through resilience was significant, b = -.09, BCa CI [-0.13, -0.05]. Hence, violence indirectly decreased subjective well-being through resilience. Violence significantly predicted lower resilience, b = -.28, t = -5.47, p < .001, and resilience significantly predicted higher subjective well-being, b = .33, t = 16.57, p < .001. Violence was also directly related to decreased subjective well-being, b = -.35, t = -7.80, p < .001, therefore the positive direct effect was significant. Resilience was therefore a partial mediator of the relationship between violence and subjective well-being. Violence and resilience explained statistically 16% (R^2 = .16) in the variance of subjective well-being.

Figure 4

Mediation Model for the Relationship Between Violence and Subjective Well-Being, when Mediated by Resilience



Note. * Coefficients are significant at the .001 level.

Discussion

The aim of this study was to explore the relation between subjective well-being, violence, and resilience, as well as observe if there was a gender difference, along with the prevalence of violence among adolescents in Iceland. The results indicate that experiencing

violence seemed to be common for Icelandic adolescents, as almost one-fifth of participants had experienced violence, which is similar in other countries (Finkelhor, et al., 2005; Kann et al., 2018). Experiencing violence leads to lower subjective well-being, supporting the first hypothesis of the study. This is consistent with previous studies which have shown that victims of violence report lower subjective well-being than non-victims (Barnum & Perrone, 2017; Mahuteau & Zhu, 2015).

Findings indicated that female victims of violence had lower subjective well-being than male victims, therefore the second hypothesis was supported. There is a lack of research in which genders are compared pertaining to subjective well-being following exposure to violence. It can be concluded that the difference between genders' subjective well-being following exposure to violence in this study could hypothetically be due to different coping strategies between genders (Gryl, et al., 1991). Females are more likely to pursue and receive social support (Gryl, et al., 1991). Males, however, are more likely to rely on self-control and avoid situations that make them feel stressed or anxious (Gryl, et al., 1991). The difference in subjective well-being may also be due to masculine ideas from the environment that may prevent males from admitting their feelings or victimization out of shame (Holmes et al., 1997). Holmes et al. (1997) reported that cultural biases from the environment are often the reason why male victims are less likely to report exposure to violence. Therefore, males are less likely to acknowledge experience of violence because they may feel ashamed of being vulnerable (Holmes, et al., 1997). These masculine ideas are however changing, and males are more encouraged to speak up about their experiences and how they really feel (Javaid, 2014).

The first two hypotheses addressed violence as a factor that can decrease subjective well-being, as this current study and other studies have demonstrated (Barnum & Perrone, 2017; Mahuteau & Zhu, 2015). However, studies have shown that resilience can be a

protective factor following violence, which can increase overall health (Kirmani et al., 2015). In light of this, it was hypothesized that more resilience leads to higher subjective well-being for both genders. The findings supported the hypothesis and were consistent with previous studies that suggest that individuals with higher resilience are more satisfied with their life and have higher subjective well-being (Tomyn & Weinberg, 2016; Werner 1993).

The last hypothesis was also confirmed by demonstrating that resilience partially mediated the relationship between violence and subjective well-being. When resilience was not in the mediation model, the relationship between violence and subjective well-being was stronger, indicating that resilience serves as a protective factor among victims of violence. There is a lack of research specifically on the mediating role of resilience in violence and subjective well-being, however, findings of this study are in line with previous studies that have demonstrated the protective role of resilience for overall health and subjective well-being in victims of violence (Kirmani et al., 2015; Tomyn & Weinberg, 2016).

The main strength of the study was that it was a cross-sectional study with a high response rate (71%), and equal gender distribution, which reflected well the Iceland adolescent population. In addition, the sample consisted of adolescents with different experiences and backgrounds. Therefore, the findings of this current study could possibly be generalized to other adolescent's populations. Another strength is that the study used a large sample that was randomly selected, with 2,165 participants. Anonymity was maintained and participants were encouraged to respond to the survey conscientiously. Another strength of the study lies in the measure of the resilience variable. The scale that was used to measure resilience, the Connor-Davidson Resilience Scale (CD-RISC-10), is considered a valid measurement because of its internal consistency and reliability (Connor & Davidson, 2003).

One of the limitations of this study was that the variables were measured using participants' self-evaluation, which could lead to inconsistency in the answers. Another

limitation was that one of the independent variables in the study was violence and more females had been victims of violence than males, therefore, comparing the genders and their experience following violence may be inconsistent because more females had experienced violence. In addition, the violence variable was a binominal variable, and it did not take into consideration the seriousness of the violence, only if participants had experienced physical- and/or sexual violence or not.

Even though this current study had some limitations, the study provided pertinent information about Icelandic adolescents and their subjective well-being, resilience, and prevalence of violence. To conclude, the results indicate that violence negatively affects subjective well-being, highlighting the importance of trying to prevent physical and sexual violence, as well as encourage individuals to speak up about their feelings and traumas, and find ways to contribute to their abilities to cope with adversities and increase their well-being. The years from 10 to 19 years old can be stressful enough for adolescents as they experience a lot of changes (WHO, n.d. -a). Therefore, is important for adolescents to have high subjective well-being as low subjective well-being can lead to serious consequences such as depression, post-traumatic stress disorder, increased negativity, and self-injury (Diener, 2000; Hillis, et al., 2017; Leserman, 2005). The results also emphasize the importance of resilience in the development of subjective well-being for adolescents following experience of violence, and it is therefore important to find ways to contribute to resilience, especially for those exposed to violence. There is a need for further research on this topic, especially regarding resilience as a mediator of the relationship between violence and subjective well-being. Other mediators and protective factors that contribute subjective well-being could be studied as well for further understanding on the relationship between violence and subjective well-being, such as self-esteem, self-efficacy, and social support. In addition, there is a need for additional research on how resilience affects subjective well-being differently between

genders for further understanding on how to help individuals increase their resilience, as well as reasons why males have more subjective well-being than females following experience of violence. This could provide useful information for counselors, therapists, and other individuals in the field of clinical psychology for improved practice and implementations for victims of violence, and help contribute to their overall health and subjective well-being.

References

Atkinson, B. J. (2015). Relationships and the neurobiology of resilience. In K. Skerrett & K. Fergus (Eds.), *Couple resilience: Emerging perspectives* (pp. 107–120). Springer Netherlands. https://doi.org/10.1007/978-94-017-9909-6_6

Barnum, E. L., & Perrone-McGovern, K. M. (2017). Attachment, self-esteem and subjective well-being among survivors of childhood sexual trauma. *Journal of Mental Health Counseling*, *39*(1), 39–55. https://doi.org/10.17744/mehc.39.1.04

Black, M. C., Basile, K. C., Breiding, M. J., Smith, S. G., Walters, M. L., Merrick, M. T., Chen, J., & Stevens, M. R. (2011). *The national intimate partner and sexual violence survey: 2010 summary report: Executive summary.* Centers for disease control and prevention. https://www.cdc.gov/violenceprevention/pdf/NISVS_Executive_Summary-a.pdf

Connor, K. M., & Davidson, J. R. (2003). Development of a new resilience scale: The Connor-Davidson resilience scale (CD-RISC). *Depression and Anxiety*, *18*(2), 76–82. https://doi.org/10.1002/da.10113

Diener, E. (2000). Subjective well-being: The science of happiness and a proposal for a national index. *American Psychologist*, *55*(1), 34–43. https://doi.org/10.1037/0003-066X.55.1.34

Diener, E. (2009). Subjective well-being. In E. Diener (Ed.), *The Science of Well-Being: The Collected Works of Ed Diener* (pp. 11–58). Springer Netherlands. https://doi.org/10.1007/978-90-481-2350-6_2

Finkelhor, D., Ormrod, R., Turner, H., & Hamby, S. L. (2005). The victimization of children and youth: A comprehensive, national survey. *Child Maltreatment, 10*(1), 5–25. https://doi.org/10.1177/1077559504271287

Gryl, F. E., Stith, S. M., & Bird, G. W. (1991). Close dating relationships among college students: Differences by use of violence and by gender. *Journal of Social and Personal Relationships*, *8*(2), 243–264. https://doi.org/10.1177/0265407591082005

Hayes, A. F. (2017). *Introduction to mediation, moderation, and conditional process analysis: A regression-based approach*. Guilford publications.

Hefferon, K., & Boniwell, I. (2011). *Positive psychology: Theory, research and applications*. McGraw-Hill Education (UK).

Herrman, H., Stewart, D. E., Diaz-Granados, N., Berger, E. L., Jackson, B., & Yuen, T. (2011). What is resilience? *The Canadian Journal of Psychiatry*, *56*(5), 258–265. https://doi.org/10.1177/070674371105600504

Herman-Stahl, M., & Petersen, A. C. (1996). The protective role of coping and social resources for depressive symptoms among young adolescents. *Journal of Youth and Adolescence*, *25*(6), 733–753. https://doi.org/10.1007/BF01537451

Hillis, S. D., Mercy, J. A., & Saul, J. R. (2017). The enduring impact of violence against children. *Psychology, Health & Medicine*, *22*(4), 393–405. https://doi.org/10.1080/13548506.2016.1153679

Holmes, G. R., Offen, L., & Waller, G. (1997). See no evil, hear no evil, speak no evil: Why do relatively few male victims of childhood sexual abuse receive help for abuse-related issues in adulthood?. *Clinical Psychology Review*, *17*(1), 69–88. https://doi.org/10.1016/S0272-7358(96)00047-5

Inglehart, R. (2002). Gender, aging, and subjective well-being. *International Journal of Comparative Sociology*, *43*(3–5), 391–408. https://doi.org/10.1177/002071520204300309

Javaid, A. (2016). Feminism, masculinity and male rape: bringing male rape 'out of the closet'. *Journal of Gender Studies*, *25*(3), 283–293. https://doi.org/10.1080/09589236.2014.959479

Joshi, U. (2010). Subjective well-being by gender. *Journal of Economics and Behavioral Studies*, *1*(1), 20–26. https://doi.org/10.22610/jebs.v1i1.211

Kann, L., McManus, T., Harris, W. A., Shanklin, S. L., Flint, K. H., Queen, B., Lowry, R., Chyen, D., Whittle, L., Thornton, J., Lim, C., Bradford, D., Yamakawa, Y., Leon, M., Brener, N., & Ethier, K.A. (2018). Youth risk behavior surveillance – United States, 2017. *MMWR Surveillance Summaries, 67*(8), 1–114. https://doi.org/10.15585/mmwr.ss6708a1

Kirmani, M. N., Sharma, P., Anas, M., & Sanam, R. (2015). Hope, resilience and subjective well-being among college going adolescent girls. *International Journal of Humanities & Social Science Studies*, *2*(1), 262–270.

Leserman, J. (2005). Sexual abuse history: Prevalence, health effects, mediators, and psychological treatment. *Psychosomatic Medicine*, *67*(6), 906–915. https://doi.org/10.1097/01.psy.0000188405.54425.20

Mahuteau, S., & Zhu, R. (2015). Crime victimization and subjective well-being: Panel evidence from Australia. *Health Economics*, *25*(11), 1448–1463. https://doi.org/10.1002/hec.3230

Myers, D. G., & Diener, E. (1995). Who is happy? *Psychological science*, *6*(1), 10–19. https://doi.org/10.1111/j.1467-9280.1995.tb00298.x

Olafson, E. (2011). Child sexual abuse: Demography, impact, and interventions. *Journal of Child & Adolescent Trauma*, *4*(1), 8–21. https://doi.org/10.1080/19361521.2011.545811

Paikoff, R. L., & Brooks-Gunn, J. (1991). Do parent-child relationships change during puberty? *Psychological Bulletin, 110*(1), 47–66. https://doi.org/10.1037/0033-2909.110.1.47

Pardo, A., & Román, M. (2013). Reflections on the Baron and Kenny model of statistical mediation. *Anales de psicologia*, *29*(2), 614-623. https://doi.org/10.6018/analesps.29.2.139241

Pálsdóttir, H., Sigfússon, J., Kristjánsson, Á. L., Guðmundsdóttir, M. L., Þórisdóttir, I. E., & Sigfúsdóttir, I. D. (2016). *Ungt fólk 2016. Framhaldsskólar*. Rannsóknir & greining. https://www.stjornarradid.is/library/03-Verkefni/Menningarmal/Ungt%20f%C3%B3lk%20-%20Framhaldssk%C3%B3lar%202016%20Loka%C3%BAtg%C3%A1fa.pdf?fbclid=IwAR1PYxb1wYpN4rhiqhlz6ZrPoX1DouGqBtSxUgVG-rknXBiFujyO1burxSc

Robinson, S. (1991). *Measures of Personality and Social Psychological Attitudes*. Gulf Professional Publishing.

Smith, S. G., Zhang, X., Basile, K. C., Merrick, M. T., Wang, J., Kresnow, M., & Chen, J. (2018). *The national intimate partner and sexual violence survey: 2015 data brief – updated release*. *Centers for disease control and prevention.* https://www.cdc.gov/violenceprevention/pdf/2015data-brief508.pdf

Stoltenborgh, M., Van Ijzendoorn, M. H., Euser, E. M., & Bakermans-Kranenburg, M. J. (2011). A global perspective on child sexual abuse: Meta-analysis of prevalence around the world. *Child maltreatment*, *16*(2), 79–101. https://doi.org/10.1177/1077559511403920

The Office on Woman‘s Health. (2018, 13th of September). *Physical abuse*. Relationships and safety. https://www.womenshealth.gov/relationships-and-safety/other-types/physical-abuse

Tomyn, A. J., & Weinberg, M. K. (2016). Resilience and subjective wellbeing: A psychometric evaluation in young Australian adults. *Australian Psychologist, 53(1), 68–76.* https://doi.org/10.1111/ap.12251

Tugade, M. M., Fredrickson, B. L., & Feldman Barrett, L. (2004). Psychological resilience and positive emotional granularity: Examining the benefits of positive emotions on coping and health. *Journal of personality*, *72*(6), 1161–1190. https://doi.org/10.1111/j.1467-6494.2004.00294.x

Werner, E. E. (1993). Risk, resilience, and recovery: Perspectives from the Kauai longitudinal study. *Development and Psychopathology*, *5*(4), 503–515. http://doi.org/10.1017/S095457940000612X

World Health Organization. (n.d.-a). *Adolescent health*. Health topics. https://www.who.int/health-topics/adolescent-health/#tab=tab_1

World Health Organization. (n.d.-b) *World Report on Violence and Health: Sexual violence*. Violence and injury prevention. https://www.who.int/violence_injury_prevention/violence/global_campaign/en/chap6.pdf