

Investigating relationships between ostracism and
psychological factors among former members of religious groups

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Bachelor of Arts (Honours) in Psychology

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Abstract

The current study investigated relationships between ostracism, time, depression, stress, and social support among former Jehovah's Witnesses (JWs) who are an example of religion that practice 'shunning' towards their former members and a comparison group of former members of religions who do not practice 'shunning'. An online questionnaire was administered to 204 participants (58.8% female). The study investigated (1) whether levels of perceived ostracism (global and religious-based) are higher among former JWs than in the comparison group (2) the relationship between duration outside the religion and perceived ostracism among former JWs (3) effects of former religion (JWs vs Comparison) and perceived ostracism on depressive symptomology, stress, and social support. Results suggest that JWs experienced higher religious-based and global ostracism than control. There is no relationship between duration outside the religion and perceived ostracism among former JWs. Lastly findings suggest that former religion has no effect on psychological variables. However, perceived ostracism was found to have effect on psychological variables. The results indicate that individuals who experience high ostracism have higher level of depressive symptomology and stress level and lower perceived social support. The findings have important implications for our understanding of ostracism from social, cultural or religious groups and the potential negative consequences of such ostracism.

Keywords: ostracism, JWs, religious group, depression, stress, social support

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OSTRACISM AND PSYCHOLOGICAL FACTORS

Investigating relationships between ostracism and
psychological factors among former members of religious groups

Ostracism is frequently defined as a state of being socially excluded or ignored by individual or a group of people, and it often takes place without clear and explicit explanation (William, 2007). The act of ostracism lack verbal derogation and physical attack, however it is an extremely painful and mentally damaging experience (Williams & Nida, 2011). The research shows not immediately obvious behaviours, such as averting of eye gaze or looking through an individual as if this person does not exist, is able to produce sense of being ostracised (Wesselmann, Cardos, Slater, & Williams, 2012; Wirth, Sacco, Hugenberg, & Williams, 2010). The research demonstrated that being a victim of ostracised portray a significant threat to an individual's well-being (Wesselmann, Hales, Ren, & Williams, 2015; Williams & Nida, 2011). Only for the last few decades' scholars were concerned by the detrimental consequences of ostracism on the individuals, as acceptance as a member of the group is a necessity for maintaining security and psychological well-being (Baumeister & Leary 1995, Smith et al., 1999).

Only recently the first model of ostracism called the temporal need-threat model was developed by Williams (2009). The model suggests that the act of ostracism is extremely distressing, painful and is threatening to the fundamental psychological needs (feelings of belonging, control, self-esteem, and meaningful existence). Research suggests that verbal abuse is much less threatening to the four fundamental psychological needs than being ostracised (Zadaro et al., 2005). Moreover, it seems that ostracism is such a powerful act that is comparable to physical pain.

Neuroimaging research by Eisenberger, Lieberman, and Williams (2003) suggested that the same regions of the brain are responsible for the social and physical pain. The study demonstrated that being ostracised during a virtual game was linked to elevated activation of

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the dorsal anterior cingulate cortex which is also activated during physical pain. Additionally, this elevation in activation of dorsal anterior cingulate cortex was associated with self-reported distress. Even watching someone being ostracised can increase cortisol level (hormone associated with the stress response), blood pressure and cause psychological distress (Coyne, Nelson, Robinson, & Gundersen, 2011; Wesselmann, Bagg, & Williams, 2009). Furthermore, the painful experience of ostracism is commonly found to negatively impact mental health (Williams, 2007, 2009).

Ostracism and Depression

Previous studies have found that experience of ostracism was associated with depressive disorder and propose that people who are the victims of ostracism are more liable to a rise in existing depression (Leary, 1990; Nolan, Flynn, & Garber, 2003; Williams, 2007). Moreover, the research demonstrated that the stronger the intensity of ostracism, the higher the level of depression (DeWall, Gilman, Sharif, Carboni, & Rice, 2012). A study by Zadro, Arriaga, and Williams (2008) have shown that ostracism by family leads to highly devastating psychological outcomes such as the inability to create new social relationships, self-destructive behaviours and thoughts. There is evidence that ostracism and rejection by parents are significant predictors of major depressive episodes in children (Hammen, 2005; Naz & Kausar, 2013).

Ostracism and Stress

A qualitative study by Waldeck, Tyndall, and Chmiel (2015) demonstrated that the act of ostracism caused individuals to feel psychological pain and caused them to feel stressed. Moreover, the negative effect of ostracism was significantly stronger when ostracism came from the close one than when came from the stranger. Similarly, study by Zadro, Williams, and Richardson (2005) found that ostracised and socially excluded individuals reported high

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amount of stress and anxiety. A number of physiological studies have also demonstrated an association between ostracism and stress. Results from Zadro, Williams, and Richardson (2004) study revealed that individuals exhibited elevation of blood pressure during the act of ostracism. A study by Stroud et al. (2000) has shown that individuals who experienced ostracism and rejection displayed significantly higher level of cortisol, blood pressure and scored much higher on the self-reported measure of stress compared to non-ostracised controls. Similarly, Gunnar, Seban, Tout, Donzella, and van Dulmen (2003) found that children ostracised by their peers exhibited significantly higher cortisol level in comparison to children who were not ostracised by their peers.

Ostracism and Social Support

Having social support seems to be helpful in coping with the detrimental negative consequence of ostracism. Participant in the qualitative study by Waldeck et al. (2015) reported that without having any social support from their close ones that would help them to cope with harmful effects of ostracism, they would not be able to cope with the pain caused by ostracism as this will make them feel isolated and left out. A study by Teng and Chen (2012) demonstrated that ostracised individuals who had a close friend or family member exhibited a reduction in the negative impact of ostracism compared to those without family or close friend. However, the reduction only occurred in individuals with high self-esteem. A study on socially excluded adolescents found that reminding oneself of having good social support made up of friends and family can help recover psychological needs such as belonging (Twenge, Baumeister, DeWall, Ciarocco, & Bartels, 2007). Previous research suggests that this negative impact may be increased or decreased if ostracism is experienced over a prolonged period.

Prolonged Ostracism

Research has shown that individuals who experience long-term ostracism enter a resignation stage, which is characterized by an inability to recover fundamental psychological needs and causes a reduction of their coping abilities and psychological resilience which may lead to feelings of helplessness, alienation, depression, and unworthiness. Furthermore, pain and feeling of ostracism gets worse over time (Williams, 2009). A research by Riva, Montali, Wirth, Curioni, and Williams (2017) found that participants who were exposed to long-term ostracism were not able to recover their psychological needs in comparison to those who experienced short-term ostracism. People who experience prolonged ostracism in an education setting (Saylor et al., 2012) and at work (O'Reilly, Robinson, Banki, & Berdahl, 2014) exhibit lower self-esteem, sense of belonging and higher distress than those who experience bullying. Moreover, research demonstrated that experience of social exclusion and ostracism is significantly more painful than being a victim of bullying (Williams, 2001; Williams, & Nida, 2011).

A study by Ferris, Brown, Berry, and Lian (2008) found that individuals who were exposed to numerous acts of ostracism reported elevated depression symptoms and anxiety in a follow-up study 5 months later. Therefore, the evidence shows the effect of ostracism is long-lasting. The research by Allen and Badcock (2003) on the risk of depression proposes that prolonged ostracism causes individuals to believe that they have negligible value and are just a burden to other people. Moreover, due to the fear of being excluded even further the individuals may try to avoid any interpersonal relationships. However, some argue that ostracised individuals may have more time to reflect on the experience of being ostracised and over time implement many coping strategies such as find a new social group that provides individual with support (Wesselmann & Williams, 2010). Similarly, the experimental study proposes that individuals may start recovering even in a very short

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amount of time after ostracism takes place and imply various cognitive and behavioural methods in order to understand what caused ostracism and how to resolve the situation (Williams, 2009). A study by Maner, DeWall, Baumeister, and Schaller (2007) demonstrated that individuals who were ostracised exhibited higher interest in creating new social relationships than control. As prolonged ostracism is associated with negative effects, ostracised individuals may want to rebuild their social circle in order to mitigate negative effects of ostracism and receive social support.

The majority of research looks at the individual level of ostracism and the current study aims to investigate ostracism at a group level. The findings suggest that majority of research is conducted around family and friends (Hammen, 2005; Naz & Kausar, 2013; Teng & Chen, 2012; Zadro et al., 2008). Ostracism can be experience from certain groups such as if you are a member of social, cultural or religious group. The practice of ‘shunning’ of former members by certain religions is a form of ostracism. The example of a religion that uses shunning practice towards any individual who decides to leave the religion are (JWs).

Ostracism in Jehovah’s Witnesses

The current study is particularly interested in JWs as a sample as this church frequently use shunning towards their former members. Whether the person chooses to disassociate himself/herself or is expelled by the elders of the church, the same practice of shunning applies (Watchtower Bible and Tract Society of New York, 2016, 2017). The JWs literature states that any interaction with former members has to be kept to a minimum. The JWs stress that loyal members of the church will not try to seek for any justification to interact with the disfellowshipped family. Moreover, the church expects from their congregation that they will "quit mixing in company" with the former members of the JWs even their children (Watchtower Bible and Tract Society of New York, 2014). The church suggests that the parents of expelled underage children should satisfy only the physical needs

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such as food, clothing, and shelter and provide them with moral training and discipline (Watchtower Bible and Tract Society of New, 2007). The JW's state that despite the pain experienced by the expelled members, shunning has positive results for the entire congregation and the disfellowshipped members (Watchtower and Tract Society of New York, 2015).

Given that active members of JW's are encouraged to interact only with other JW's, and tend to isolate themselves from people who are not members of the church, they may be particularly at risk of a negative impact of ostracism upon leaving the religion. This may mean they are ostracised by the majority of their social network. JW's stress that active members of the church should not have any relationships with "worldly people" which mean non-JW's as they will contaminate the spirituality of the congregation (Watchtower Bible and Tract Society of New York, 2013). Consequently, when an individual is expelled from the church, he/she has to face completely new, difficult and stressful situation with no readily available external social support.

JW's believes that the only way the former member will be able to be socially accepted by the church is when he/she will repent and show remorse which will reinstate the individual into the congregation (Watchtower Bible and Tract Society of New York, 2015). However, former JW's may return to the church after months or years of being disfellowship or sometimes the former member will never return to the congregation which will cause long-term ostracism. Previous studies have shown that social support and interactions with members of the religious groups have an essential role in protecting people from psychological distress and depressive symptoms (Chatters, Taylor, Woodward, & Nicklett, 2015; Nooney & Woodrum, 2002; Taylor, Chatters, & Abelson, 2012). Therefore, when the former member is losing his/her religious social support due to the ostracism his/her psychological wellbeing is in massive danger.

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The arguments above suggests that former JW's represents a group at risk of being ostracised as a result of the practice of shunning, and therefore are an interesting population to study the psychological consequences of ostracism. However, individuals in other religions can leave the church without being a victim of ostracism. Therefore, JW's can be compared to other religions where practice of shunning is not a policy towards former members of those religions.

Ostracism in Religious Groups

The first example of a group that do not use ostracism is the Church of Jesus Christ of Latter-day Saints (Mormons). They state that when the family member decides to leave the church their Mormon family should still show her/him affection and love despite different beliefs and lifestyle (Zenger-Baker, 2016). Similarly, the Mormon congregations should love and support the members of the church that decided to leave (Ballard, 1990). The second example is the Catholic church. Their 1983 code of canon law does not include policy about shunning toward excommunicated individuals. Lastly, Islamic faith state in Quran that there is no compulsion in religion and faithful should let an individual disbelieve (Itani, 2012). There is no suggestion of applying ostracism towards the former Muslim in Quran. Therefore, the evidence has shown that those religions do not use ostracism towards the former members that decided to leave the religious organisation.

Current study

The current study is aimed to investigate the relationships between ostracism, depression, stress and social support in former members of religious groups. The study will compare former JW's, who are considered an ostracised group due to the practice of shunning former members by this religion, with a control group of former members of other religions (which do not have a practice of shunning or ostracising their former members). The practice

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of 'shunning' of former members by JWs offer an opportunity to study and increase understanding of ostracism from a cultural, social or religious group.

Based on the previous empirical evidence it will be hypothesised that: (1) There be significant higher level of religious based ostracism and global ostracism among former Jehovah's Witnesses compared to former members of other religions (2) There be a relationship between duration outside the religion and perceived religious based and global ostracism among former JWs (3) Is there a difference in levels of depression in religious membership (former members of Jehovah's Witnesses vs other former members of religious groups), and perceived global ostracism (low vs high)? Does level of perceived ostracism moderate the association between religious membership and depression? (4) Is there a difference in levels of stress in religious membership (former members of Jehovah's Witnesses vs other former members of religious groups), and perceived global ostracism (low vs high)? Does level of perceived ostracism moderate the association between religious membership and stress? (5) Is there a difference in levels of social support in religious membership (former members of Jehovah's Witnesses vs other former members of religious groups), and perceived global ostracism (low vs high)? Does level of perceived ostracism moderate the association between religious membership and social support?

Method

Participants

For this study, the author/researcher targeted 2 samples, former Jehovah's Witnesses and other former members of religious groups. The researcher used G*Power created by Faul, Erdfelder, Lang, and Buchner (2007) to estimate required sample size for the study. The recommended size was 88 per group (176 total) with medium effect size and a 95% confidence interval. The sample size for the current research consisted of 203 participants. The total of 120 (58.8%) were female, 80 (39.4%) were males and an additional 4 (2%) individuals did not to specify their genders. All participants were aged 18 and above who had mental and legal capacity to sign informed consent. An additional six participants were removed from the dataset as they did not leave their religious group, or they did not state their former religion.

Participants ranged in age from 18 to 74 ($M = 33$, $SD = 12.6$) and were recruited from the Facebook groups involving former members of religious groups. The sample was very difficult to access directly without using Facebook groups; therefore, the researcher used convenience sampling. The study was made up of 48.3% former Jehovah's Witnesses and 51.7% other former members of religious groups (see Table 2 for full details). The participants were eligible to take part in the study if they were age over 18 and were former members of the religious group. The study excluded participants with clinical diagnosis of Major Depressive Disorder to reduce the possible risk of threat to the mental health of the participants.

Design

The present study used quantitative approach and a non-experimental cross-sectional design. The study was cross-sectional as measured variables at the one point in time. Furthermore, the current study had a correlational design as it did not determine any causation and the researcher did not manipulate any variables. In hypotheses 1 the independent variable included nature of former religious group (former members of Jehovah's Witnesses or other former members of religious groups) and the dependent included religious and global ostracism. In hypotheses 2 the independent variable included the time an individual was outside the religious group and the dependent variable included global and religious-based ostracism. The independent variables for the hypotheses 3-5 comprised of nature of former religious group (former members of Jehovah's Witnesses vs other former members of religious groups), and global ostracism (low vs high) and the dependent variables included depressive symptomology, stress and social support.

Materials

The survey was created by using Google Form which comprised of the information sheet (see Appendix A), an online consent form (see Appendix B), debriefing sheet (see Appendix C). Additionally the online survey included six self-report questionnaires, including a demographic questionnaire (see Appendix D), Multidimensional Scale of Perceived Social Support (MSPSS) by Zimet, Dahlem, Zimet, and Farley (1988; see Appendix E), Goldenberg's Depression Scale developed by Goldenberg (1993; see Appendix F), The Modified Perceived Stress Scale (PSS-10) by Cohen and Williamson (1983; see Appendix G), and 2 Modified Versions of 10-item Workplace Ostracism Scale (WOS) by Ferris et al., (2008; see Appendix H & Appendix I).

Demographic Questionnaire

The study used a 5-item questionnaire in order to determine the gender, age, the time an individual was outside the religious group (in years) and the former religion membership. The questionnaire included 2 open-ended and 3 close-ended questions.

The Multidimensional Scale of Perceived Social Support (MSPSS)

The Multidimensional Scale of Perceived Social Support (MSPSS) by Zimet et al. (1988) is short 12-item self-report scale devised to evaluate individuals' perceptions of social support. The scale measures the level of perceived social support on a seven-point Likert scale (1 = "Very Strongly Disagree", 7 = "Very Strongly Agree"). The scale measures three different sources of social support: family, friends and significant others. The scores for each type of social support range from 4 to 28. To calculate mean scores for each of the subscales, the total score needs to be added and then divided by 4. A total score for the perceptions of social support ranges from 12 to 84 and calculated by computing the mean of all the 12 items. The higher scores indicate higher levels of social, family, friends and significant others support. The MSPSS was used in previous studies and the reliability and validity were found satisfactory ($\alpha = .88 - .92$) (Başol, 2008; Zhou et. al., 2015; Zimet, at al., 1988). The Cronbach's Alpha for the scale in this current sample was ($\alpha = .9$) which indicate satisfactory internal consistency.

Goldberg's Depression Scale

Goldberg's Depression Scale by Goldberg (1993) is an 18-item self-report scale devised to measure the levels of depressive symptoms. The questionnaire evaluates the intensity of depressive symptoms in the last 10 to 14 days. The scale measures the level of depressive symptoms on a six-point Likert scale (0 = "Not at All", 5 = "Very Much"). The

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scores range from 0 to 90 with greater scores indicating greater levels of depressive symptoms. The test identifies 5 levels of intensity of depressive symptoms: 0 – 9 likely no depressive symptoms, 10 – 21 score may be due to depressive symptoms or other medical issues, 22 – 35 mild to moderate depressive symptoms, 36 – 53 moderate to severe depressive symptoms, 54 and above severe depressive symptoms. The scale has been found to have satisfactory reliability and validity ($\alpha = 0.8 - 0.9$) (Aminpoor, Afshinfar, & Ostovar, 2012). The Cronbach's Alpha for the scale in this current sample was ($\alpha = .9$) which indicate satisfactory internal consistency.

The Modified Perceived Stress Scale (PSS-10)

The Modified Perceived Stress Scale by Cohen and Williamson (1983) is commonly used 10-item scale devised to measure general perceived stress. The scale measures perceived stress level on a five-point Likert scale (0 = "Never, 4 = "Very Often"). The scores for general perceived stress level range from 0 to 40 and greater scores indicate greater perceived stress level. The item 4, 5, 7 and 8 are reversely scored (0 = 4, 1 = 3, 2 = 2, 3 = 1, and 4 = 0). The scale was found to have satisfactory validity and reliability ($\alpha = .82 - .84$) (Dias, Silva, Maroca, & Campos, 2015; Maroufizadeh, 2018; Roberti, Harrington, & Storch, 2006). The Cronbach's Alpha for the scale in this current sample was ($\alpha = .91$) which indicate satisfactory internal consistency.

Modified Version of 10-item Workplace Ostracism Scale (WOS)

The Workplace Ostracism Scale by Ferris et al., (2008) is a 10 item self-reported scale devised to evaluate the amount of perceived ostracism in the workplace. The scale evaluated the intensity of ostracism in the last 6 months. The reliability of the WOS scale is high between ($\alpha = .89 - .96$) (Ferris et al., 2008). The scale was modified to measure Global Perceived Ostracism and Perceived Ostracism by Formal Religious Group. The basis for

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modifying the scale in current study was Waldeck, Tyndall, Riva, and Chmiel (2017) study that previously modified the WOS scale to any context in which ostracism occurred. The modified WOS scale had high reliability and validity ($\alpha = .90$). The scale measured the level of Global Perceived Ostracism and Perceived Ostracism by Formal Religious Group on a seven-point Likert scale (1 = "Never", 7 = "Always"). The Cronbach's Alpha for the Global Perceived Ostracism in this current sample was ($\alpha = .9$) and for Perceived Ostracism by Formal Religious Group was ($\alpha = .98$) which indicate satisfactory internal consistency.

Procedures

Before the study began the researcher obtained ethical permission from the NCI Ethics Committee to conduct the current study and recruit participants, the survey was created using google forms. A pilot study was carried out in order to identify the amount of time the participants will need to spend filling out the questionnaires. Moreover, it was also a necessity to confirm that the format of the survey, information sheet, consent sheet, debriefing sheet and questionnaires were easy to understand. For the purpose of the pilot study 10 psychology students were timed and asked about the feedback. Based on the pilot study no significant problems with questionnaires were found. Therefore, no change to the questionnaires were made before proceeding to the main data collection.

The researcher did not meet the respondents face to face as the research was conducted online and the participants filled out the questionnaire in their own time. A link to the survey was posted online, on the researcher's Facebook and the Facebook groups involving former members of the religious groups. After clicking on the link, participants were firstly presented with consent sheet (see Appendix B) where they were informed about the nature of the research, the right to withdraw, procedures, risk, benefits, inclusion and

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exclusion criteria in an easy to understand form. The information sheet (see Appendix A) stated that the questionnaire will take about 5-10 minutes to complete.

Participants were informed that they can withdraw from the study before submitting their data. All data was collected anonymously, therefore, was not possible to withdraw participant's data once they had submitted their questionnaire. The respondents were encouraged to contact the researcher or her supervisor in order to clarify the contents of the study. To make sure that the aim and objective of the study were fully acknowledge by the respondents the study collected the informed consent. The participants indicated their informed consent by ticking a box (see Appendix C for the content of the informed consent).

The questionnaire was designed so that participants could not precede the questionnaire without indicating their consent. Once participants had recorded their consent, they were directed to fill out the remaining online questionnaire. Lastly, after all the scales were completed the respondents were thanked for their participations and were presented with debriefing sheet on the screen. Moreover, they were reminded again that once they submit their data, they will no longer be able to withdraw from the study. The researcher provided participants with the helpline numbers in case any component of the study caused them to feel distressed. All the responses of the survey were automatically saved on the google form, protected with the password and accessible exclusively by the researcher. The data was downloaded from google forms to create an electronic file for the data analysis. All data analysis was conducted using SPSS.

Results

Descriptive Statistics

The study analysed the mean, medium, SD and the range for the 6 continuous variables (see Table 1). Preliminary analyses were conducted to explore the normality. Based on results of Kolmogorov-Smirnov normality test no variable is normally distributed $p = .001$. All variables are positively skew except social support which is negatively skew.

Table 1

Descriptive Statistics of all continuous variables

	Mean (95% Confidence Intervals)	Std. Error Mean	Median	SD	Range
Age	32.82 (31.13-34.52)	.86	28	12.26	18-74
Time	8.48 (7.22-9.74)	.64	5	9.1	0-50
RO	36.1 (32.8-39.31)	1.65	26	23.52	10-70
GO	24.61 (22.59-26.64)	1.03	19	14.6	10-70
Depression	32.42(29.4-35.5)	1.54	28	21.9	1-90
Stress	21.21(20.1-22.34)	.57	21	8.12	2-40
Social support	4.48(4.3-4.7)	.09	4.7	1.4	1-6.92

Note. Time = the time an individual was outside the religious group; RO = religious based ostracism; GO = Global Ostracism.

The current research calculated frequencies and valid percentage for two demographic variables: gender and former religious memberships (see Table 2).

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Table 2

Frequencies for the sample of former Jehovah's Witnesses and other former religious members on each demographic variable (N = 203)

Variable	Frequency	Valid Percentage
JWs	98	48.3
Other	105	51.7
Muslim	30	14.8%
Protestants	29	14.3%
LDS	22	10.8%
Catholicism	9	4.4%
Hindus	4	2%
Nonspecific Christians	7	3.4%
Orthodox	3	1.5%
Jewish	1	0.5%
Gender		
Male	80	39.4
Female	119	59.6
PNTS	4	2

Note. JWs = former members of Jehovah's Witnesses; Other = other former members of religious groups; LDS = The Church of Jesus Christ of Latter-day Saints.

Inferential Statistics

Two independent samples t-test

Two independent samples t-tests were conducted to compare global ostracism and religious based ostracism scores between former members of JWs and other former members of religious groups. There was a significant difference in global ostracism (see Table 3), with former members of JWs scoring significantly higher than other former members of religious groups (see Figure 1). The magnitude of the differences in the means (mean difference = 9.97, 95% CI: 6.18 – 13.81) was large (Cohen's $d = .7$). There was a significant difference in religious ostracism (see Table 3), with former members of Jehovah's Witnesses scoring significantly higher than other former members of religious groups (see Figure 1). The magnitude of the differences in the means (mean difference = 30.38, 95% CI: 25.39 – 35.36) was large (Cohen's $d = 1.7$).

Table 3

The results of t-test show the differences between former members of JWs and other former members of religious groups for global and religious based ostracism.

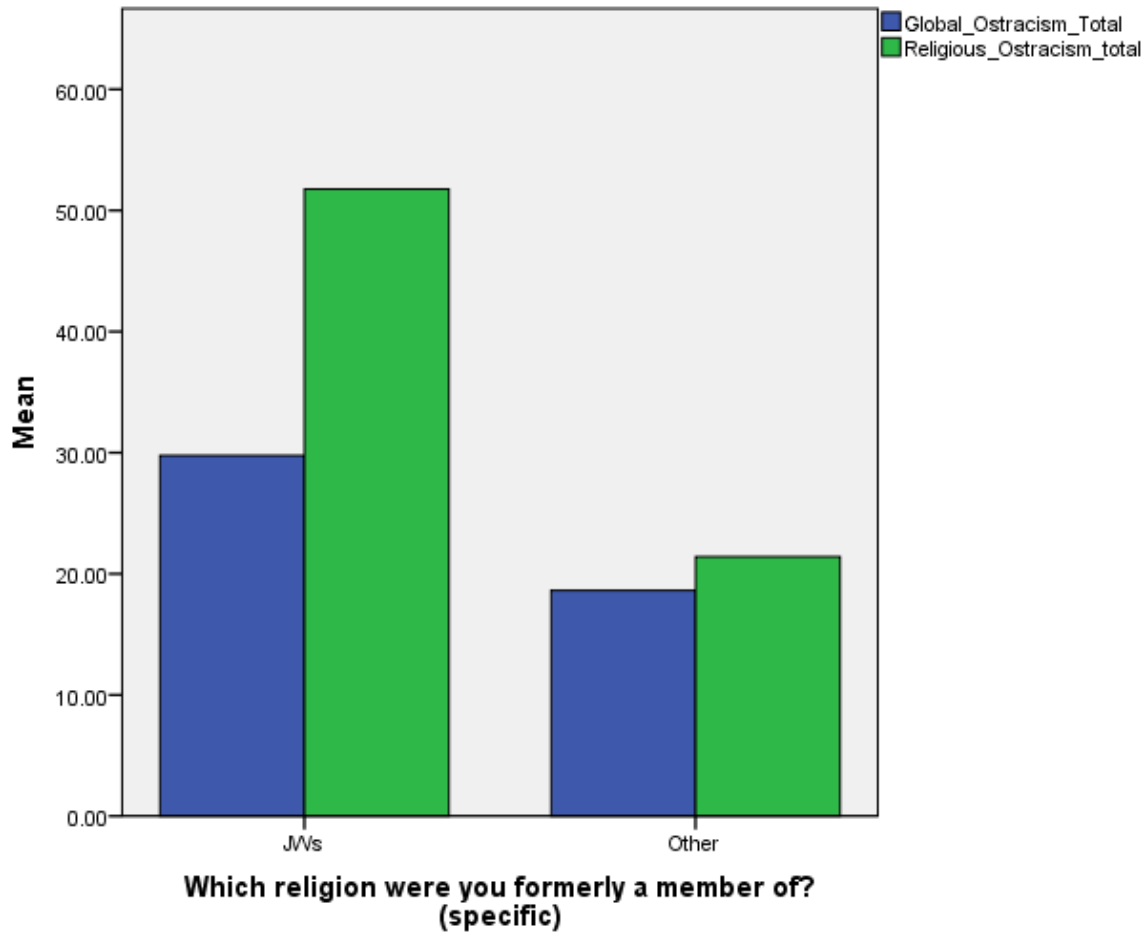
Variable	Group	N	M	SD	t	D
Global Ostracism	JWs	98	29.77	16.6	5.16*	.72
	Other	105	19.8	10.4		
Religious Ostracism	JWs	98	51.78	20.77	12.02*	1.7
	Other	105	21.4	14.9		

Note. JWs = former members of Jehovah's Witnesses; Other = other former members of religious groups; d = Cohen's d ; Statistical significance: * $p < .05$; ** $p < .01$; *** $p < .001$

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Figure 1

The difference on religious and global ostracism between JWs and Other.



Note. JW's = former members of Jehovah's Witnesses; Other = other former members of religious groups

A Spearman's rank-order correlation coefficient

The study examined correlation between the time a JW's was outside the religious group and religious based and global based ostracism using Spearman's rank-order correlation coefficient. The results show that there was a small and not significant correlation between the global ostracism and the time an individual was outside the religious group (see Table 4). The results show that there are no significant correlations and of a small magnitude

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between religious based ostracism and the time an individual is outside the religious group (see Table 4).

Table 4

Correlations between the time an individual was outside the religious group and religious and global ostracism.

Variables	1	2	3
1. GO	1		
2. RO	.57***	1	
3. Time	.02	.07	1

Note. Time = the time an individual was outside the religious group; RO = religious based ostracism; GO = Global Ostracism; Statistical significance: * $p < .05$; ** $p < .01$; *** $p < .001$.

A two-way between groups analysis of variance

A two-way between groups analysis of variance was performed to investigate for: (1) differences in religious membership (former members of JWs vs other former members of religious groups), and perceived global ostracism (low vs high), on levels of depression, and (2) to investigate if the effect of religious membership on levels of depression depends upon perceived level of ostracism. Preliminary results of Levene's tests signified a violation of the assumption of homogeneity of variance ($p = .02$) consequently a new alpha level ($p < .01$) was chosen to dictate any effects that may be statistically significant.

The interaction effect between religious membership, and perceived global ostracism was not found statistically significant, (see Table 5). The main effect for religious membership was not significant and the effect size was small (see Table 5). The main effect

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for global ostracism was significant, nevertheless the effect was small (see Table 5). The results indicate that the mean score for high perceived ostracism ($M = 41.81$, $SD = 21.43$) was significantly higher than low ostracism ($M = 22.7$, $SD = 17.8$).

Table 5

ANOVA Summary Table exploring the effect of former religion and perceived ostracism on depression

Source	<i>df</i>	MS	<i>F</i>	<i>p</i>	Effect Size
RM	1	114.81	.30	.59	.001
GO	1	15812.74	40.57	.001	.2*
RMxGO	1	656.5	1.68	.2	.008
Error	198	389.8			
Total	202				

Note. RM= Religious membership, GO= Global ostracism, MS = Mean squares, effect size = η^2 or partial η^2 , Statistical significance: * $p < .001$.

A two-way between groups analysis of variance was performed to investigate for: (1) differences in religious membership (former members of Jehovah's Witnesses vs other former members of religious groups), and perceived global ostracism (low vs high), on levels of stress, and (2) to investigate if the effect of religious membership on levels of stress depends upon perceived level of ostracism. Preliminary results of Levene's tests signified a violation of the assumption of homogeneity of variance ($p = .045$) consequently a new alpha level ($p < .01$) was chosen to dictate any effects that may be statistically significant.

The interaction effect between religious membership, and perceived global ostracism was not found statistically significant (see Table 6). The main effect for religious membership was not significant and the effect size was small (see Table 6). The main effect for global

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ostracism was significant, nevertheless the effect was small (see Table 6). The results indicate that the mean score for high perceived ostracism ($M = 24.52$, $SD = 7.39$) was significantly higher than low ostracism ($M = 17.76$, $SD = 7.44$).

Table 6

ANOVA Summary Table exploring the effect of former religion and perceived ostracism on stress

Source	<i>df</i>	MS	<i>F</i>	<i>p</i>	Effect Size
RM	1	174.84	3.20	.075	.02
GO	1	1768.40	32.37	.001	.14*
RMxGO	1	4.03	.074	.79	.001
Error	198	54.62			
Total	202				

Note. RM= Religious membership, GO= Global ostracism, MS = Mean squares, effect size = η^2 or partial η^2 , Statistical significance: * $p < .05$; ** $p < .01$; *** $p < .001$.

A two-way between groups analysis of variance was performed to investigate for: (1) differences in religious membership (former members of Jehovah's Witnesses vs other former members of religious groups), and perceived global ostracism (low vs high), on levels of social support, and (2) to investigate if the effect of religious membership on levels of social support depends upon perceived level of ostracism. Preliminary results of Levene's tests signified that no violation of the assumption of homogeneity of variance ($p = .15$).

The interaction effect between religious membership, and perceived global ostracism was not found statistically significant, (see Table 7). The main effect for religious

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membership was not significant and the effect size was small (see Table 7). The main effect for global ostracism was significant, nevertheless the effect was small (see Table 7). The results indicate that the mean score for high perceived ostracism ($M = 3.98$, $SD = 1.31$) was significantly lower than low ostracism ($M = 5.04$, $SD = 1.16$).

Table 7

ANOVA Summary Table exploring the effect of former religion and perceived ostracism on social support

Source	<i>df</i>	MS	<i>F</i>	<i>p</i>	Effect Size
RM	1	3.70	2	.16	.01
GO	1	45.52	29.83	.001	.13
RMxGO	1	1.85	1.21	.27	.006
Error	198	1.53			
Total	202				

Note. RM= Religious membership, GO= Global ostracism, MS = Mean squares, effect size = η^2 or partial η^2 , Statistical significance: $*p < .001$.

Discussion

This study is the first to the researcher's knowledge that investigates perception of religious based ostracism and the association with time, depression, stress and social support. The majority of the previous research assessed ostracism at the individual level and the present research was aim to investigate ostracism at a group level. The current research focused on former members of JWs who are ostracised group as they experience 'shunning' which is a form of ostracism from their former religion. The practice of 'shunning' of former members by JWs offered an opportunity to study and deepen understanding of ostracism from a cultural, social or religious group. Moreover, individuals in other religions are able leave to leave their former religion without being a victim of ostracism. Therefore, JWs were compared to other religions where practice of shunning is not a policy towards former members of those religions.

Ostracism level difference between former JWs and former non-JWs

Current findings fully supported the hypothesis that both religious based ostracism and global ostracism was higher among former (JWs). Moreover, the effect size of the difference was moderate-large, in religious based ostracism (Cohen's $d = .72$) and in global ostracism (Cohen's $d = 1.7$). Therefore, this means that there is a very high chance that a former JWs chosen at random will have a significantly higher score than former members of other religions. The results are consistent with existing literature of JWs. The church states that the practice of shunning applies to all former members of the church (Watchtower Bible and Tract Society of New York, 2016, 2017). Moreover, even closest family is advised not to contact relatives that left the religious organisation (Watchtower Bible and Tract Society of New York, 2014). However, individuals in other religions could leave the church without being a victim of ostracism as the practice of shunning is not a policy towards former members of those religions (Ballard, 1990; Itani, 2012; Zenger-Baker, 2016). The above

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arguments suggest that former JW's represents a group at risk of being ostracised as a result of the practice of shunning. The results attained above contribute to the existing literature as it investigated the experience of ostracism in a religious context, which was not focused on in any research before.

Duration outside the religion and ostracism

The second aim of this study investigated a relationship between the time an individual is outside religion and the level of religious based and global based ostracism. As previous studies suggested that the process of adjustment after ostracism is present and individuals engage in adaptive response in order to restore their social circle and reduce negative feelings of ostracism (Maner et al., 2007; Wesselmann & Williams, 2010). However, contradicting previous research demonstrated that pain and feeling of ostracism gets worse over time (Allen & Badcock, 2003; Williams, 2009). The results of the present study did not support those hypothesis as the findings indicate that there is no relationship between the time an individual is outside religion and religious based and global ostracism. Therefore, there is no indication that process of adjustment was present among former JW's or either that feelings of ostracism got stronger overtime as previous literature suggested.

The present results may propose that the individuals experience the same level of perceived ostracism after initial shunning over a long period of time. As the JW's literature states the shunning practices would only stop when an individual will be reinstated into the congregation (Watchtower Bible and Tract Society of New York, 2015). Therefore, JW's ostracise their former members consistently and at the same level. The participants in the present study did not return to the church, consequently, the perception of religious based and global ostracism was unchangeable over time. The findings support an alternative theory that perception of social exclusions may be stable over a period time (Lev-Wiesel, Nuttman-Shwartz, & Sternberg, 2006; Modin, Östberg, & Almquist, 2011).

Religious membership and ostracism on psychological variables

As JWs scored higher in both global and religious based ostracism, as can be seen from first hypothesis, global ostracism was used in ANOVA to capture more variance in ostracism rather than religious based ostracism. The hypothesis 3-5 investigated the differences in religious membership (former JWs vs other) and perceived global ostracism (low and high) on levels of depressive symptoms, stress and social support. Secondly, it was investigated whether the effect of religious membership on levels of depression, stress and social support depends upon the perception of level of ostracism. The study found that there is no interaction between ostracism and religious membership. Therefore, the influence of religious membership on psychological variables does not depend whether you perceive low or high ostracism.

The findings suggest that influence of religious membership on depressive symptoms, stress and social support is not different for former JWs who are victims of structured ostracism and other former members of religious groups. The results support an alternative theory that the comparison group may have the same level of depression, stress and social support due to other factors that the current study did not take into account. The World Health Organisation estimates that approximately 322 million individuals suffer from depressive symptoms globally (WHO, 2017). Moreover, depressive symptoms were associated with long-term physical diseases such as diabetes or arteries (Moussavi et al., 2007), experience of death of a family member or divorce (Caspi et al., 2003; Kendler, 2010), and early childhood trauma (Heim, Newport, Mletzko, Miller, & Nemeroff, 2008; Rehan, Antfolk, Johansson, Jern, & Santtila, 2017). Similarly, high level of stress was commonly linked to the standard of living (WHO, 2011), unemployment (Kocalevent, Hinz, Brähler, & Klapp, 2011) and health problems (Perez, Gavin, & Diaz, 2015). Lastly, low social support was found to be correlated high levels of extraversion, high neuroticism and low

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openness (Swickert, Hittner, & Foster, 2010), physical health issues (Blasiolo, Shinkunas, LaBrecque, Arnold, & Zickmund, 2006; Fenlon et al., 2017), and the living environment (Chrusciel, Kulik, Jakubowska, & Nalepa, 2018). The literature demonstrated that other factors may impact the level of psychological factors in the present sample and that experience of structured ostracism may have not greater effect on psychological variables than other unknown factors.

Nevertheless, the findings support the hypotheses that there was a significant difference in depressive symptoms, stress and social support level for low and high perceived ostracism. The results indicate that individuals who experience high ostracism have a higher level of depressive symptomology, a higher stress level and lower perceived social support. The findings are consistent with previous literature. The studies by Williams (2009, 2011) report that individuals who experience severe ostracism enter resignation stage which is characterized by feelings of depression. Moreover, the stronger the intensity of ostracism, the higher the level of depression (DeWall et al., 2012). Ostracism was also associated with severe stress. The study found that as more individuals were ostracised the more, they demonstrated lethargy which was a physical manifestation of extreme stress (Zadro et al., 2005). A study by Stroud et al. (2000) has shown that individuals who have experienced high ostracism exhibited a significantly greater level of cortisol, blood pressure and scored much higher on the self-reported measure of stress compared to control. Similarly, individuals who had higher social support were able to cope with ostracism and prevented feeling of isolation and left out (Waldeck et al., 2015). Teng and Chen (2012) have shown that ostracised individuals who had a close friend or family member exhibited a reduction in the negative impact of ostracism compared to those without family or close friend. Therefore, those findings suggest that individuals who have higher social support are able to mitigate the feelings of ostracism. The present results are contributed to the existing literature that severe

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ostracism is associated with negative mental health outcomes. Nonetheless, the results need to be interpreted with caution as the effect of the difference was small.

Implications

The results of the current study provide important information for research on ostracism. Mainly, the research makes a valuable contribution to the scientific literature as the majority of previous research investigated the effects of ostracism at an individual level. The current study advances the field into novel findings that have important implications for our understanding of ostracism from social, cultural or religious group. The research conducted was first to examine the relationships between ostracism, depression, stress, and social support among former religious group that practice 'shunning' which is a form of ostracism. Secondly, the research highlights the importance of preventing ostracism as it can have very negative impact on mental health. The results provide support that ostracism deserves bigger attention and suggest that mental health professionals may assess the level of stress, depression and social support in individuals who experience ostracism.

Thirdly, the study as a first investigated the relationship between duration outside the religion and perceived ostracism among former members of the ostracised religious group. The findings indicated that there is no relationship between the time an individual is outside religion and ostracism. Although the results of the present research challenge a large number of previous studies that stated the process of adjustment after ostracism is present or either that feeling of ostracism are getting stronger over time. The present results provided novel insights into the association between time and ostracism in a religious, cultural and social context. They also provide guidelines for future research that can conduct a qualitative study which identifies why perceptions of social exclusions may be stable over time. Lastly, the current study found that former Jews who experience shunning practice from their former

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church had higher perceived religious based and global based ostracism than the comparison group. Therefore, future study may investigate how ostracism could be reduce among groups who are shunned as a result of leaving a particular social, cultural or religious group.

Limitations

The study acknowledges potential limitations of the present study that have to be considered. Firstly, exclusion of individuals who were diagnosed with MDD due to the ethical reasons could have affected results as their depressive symptoms could be caused by experience of ostracism. Secondly, the differences in individuals scores in psychological variables may be due to the sources of the ostracism. As previous study by Nezlek et al. (2012) demonstrated that ostracism and social rejection from friends and family were associated with higher level of threat to the fundamental psychological needs (feelings of belonging, control, self-esteem, and meaningful existence) in comparison to ostracism from strangers and acquaintances. Moreover, a study by Waldeck et al., (2015) suggest that the stress and psychological pain caused by ostracism was significantly stronger when ostracism came from the close one than when came from the stranger.

Thirdly, the research recognizes the limit of the perceived ostracism scales. The scales measure experience of ostracism during the last 6 months. However, it does not take into consideration that individuals may not feel ostracised only because they moved away from their former communities or did not meet members of their former religions. Some individuals could be former members of religious group that has policy of shunning but they did not feel ostracise in the last 6 months, only because they did not have any interactions with them. Therefore, the level of ostracism may depend on the frequency of contact with the former religions. Lastly, a non-random sampling method used in the study could possibly lead to a non-representative sample. The selected sample could differ from an ideal

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representation of the sample that would be randomly selected. The present sample may include individuals who overrepresented or underrepresented the target population.

Therefore, the results are not generalizable to the entire population of former members of religious groups.

Conclusion

In conclusion, the present research was first to examine relationships between ostracism, depression, stress, and social support among former (JWs) who are an example of a religious group that practice 'shunning' which is a form of ostracism towards their former members and a comparison group of former members of religious groups that do not practice 'shunning'. The study used a unique example of a situation where religious policy creates ostracism. Furthermore, the study as a first investigated the relationship between duration outside the religion and perceived ostracism among former JWs. Former JWs were found to experience higher religious based and global ostracism than comparison group. These findings are consistent with statements made by JWs themselves. The findings indicate that there is no relationship between the time an individual is outside religion and ostracism. Therefore, there is no indication that process of adjustment was present among former JWs or that feelings of ostracism got stronger overtime as suggested in previous literature. The findings supported an alternative theory that perception of ostracism may be stable over time. Similarly, the findings suggest that influence of religious membership on psychological variables is not different for former JWs and other former members of religious groups. The study suggest that other factors could impact the level of depressive symptoms, stress and social support in the present sample and that experience of structured ostracism may not have greater effect on psychological variables than other unknown factors. Furthermore, the feeling of perceived ostracism was found to have an effect on depression, stress and social

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support. The research highlights the importance of preventing ostracism as it can have very negative impact on mental health.

The research suggests further research to be conducted on ostracism. More accurate measures of ostracism should be considered in future research, as level of ostracism in the present scale may depend on the frequency of contact with the members of participants' former religious group. Secondly, the current study did not find differences between former religion (JWs vs Comparison) and perceived ostracism on depressive symptomology, stress, and social support. However, future study may want to assess differences between active JWs and former JWs in terms of psychosocial variables. Whether being a member of a very isolated religious group, that has many strict rules to follow, is associated with greater depression, anxiety and stress than being former member of that group and victim of ostracism.

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Appendix A

Information Sheet

Thank you for interest in my research! My name is Wiktoria Gorczynska and I am an Undergraduate Psychology Student at National College of Ireland. As part of my degree I am required to complete an independent piece of research. This project is supervised by Dr Caoimhe Hanningan, Lecturer in Psychology at National College of Ireland. I am looking for participants to complete this online questionnaire as part of my research project.

PURPOSE: My research is created to investigate levels of social support, depression and stress in former members of religious groups (who have decided to leave their religion). I am interested whether there are differences in these psychological factors between individuals who feel ostracised by their former religious group and individuals who do not feel ostracised by their former religious group. The study will also investigate whether there is a relationship between these psychological variables and the length of time since the person left their religion.

DURATION: The questionnaire will take approximately 5-10 minutes to complete.

WHO CAN TAKE PART IN THE STUDY: If you are over 18 years of age and are a former member of a religious group.

WHO CANNOT TAKE PART IN THE STUDY: If you were diagnosed with a Major Depressive Disorder by a professional you cannot take a part in the study.

PROCEDURES: You will be asked to fill out an online questionnaire that consists of a number of sections. The questionnaire contains items related to your level of social support, your mood, your stress, and your experiences of ostracism. The questionnaire also collects some basic demographic information such as your age and gender. The questionnaire is anonymous: you will not be asked for your name or other identifying information.

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BENEFITS: There are no direct benefits to taking part in this study. However, by taking part in the research you will have the opportunity to contribute to research which aims to increase the knowledge about the psychological impact of being ostracised from social or cultural groups.

RISKS: The questionnaire will ask about your life and your feelings. Due to the nature of the questions it is possible that some participants may find them upsetting. Information about support services that are available in the event that taking part in this research causes you distress are provided at the end of the questionnaire.

CONFIDENTIALITY: All data that is collected will be treated as confidential, the answers that you provide will be accessible exclusively by me and my supervisor and will only be used for the purposes of the research. All data is collected anonymously, so it will not be possible to identify you from your questionnaire responses. The data will be stored in an electronic file that is encrypted and password protected.

RIGHT TO REFUSE OR WITHDRAW: Your participation in the research is completely voluntary and you have the right to withdraw at any time before submitting the data. You can choose to withdraw by simply closing this browser window, and your data will not be stored. Once you have clicked 'submit' at the end of the questionnaire, your data will be stored anonymously, and it will not be possible to withdraw your data after this point.

OFFER TO ANSWER QUESTIONS: If you would like to clarify any aspect of my study, please do not hesitate to contact me.

Contact: wiktoriagorczynskaresearch@gmail.com

Appendix B

Informed Consent Form

By ticking the box below, I acknowledge that:

- I have read and understood the aim, nature, purpose, risk, benefits, confidentiality, inclusion and exclusion criteria.
- I was provided with sufficient instructions and information about the study and procedures as above.
- I confirm that I am 18 years old or above and that have mental and legal capacity to sign the informed consent.
- I was not diagnosed by a professional with Major Depressive Disorder.
- I am aware of my rights to withdraw without any consequences from the study.
- I understand that my participation is fully voluntary, and I will not receive compensation for participation in the study
- I consent to use of the data in the research, publications and presentation as explained.
 - I confirm that I am over 18 years old and consent to take part in this research.

Appendix C

Debriefing Sheet

Please submit your questionnaire by clicking the button below as if you exit the window without clicking submit your response will not be saved. Thank you very much for taking part in my research. Once you have pressed submit your data will be stored and it will no longer be possible to withdraw from the study. The information you provided will make a valuable contribution to the scientific literature. If you have any questions about the research please do not hesitate to contact me: wiktoriagorzynskaresearch@gmail.com or my supervisor Dr Caoimhe Hannigan: Caoimhe.Hannigan@ncirl.ie. If due to the content of the study you feel especially upset or distress feel free to contact:

- Samaritans 116 123 (24-hour freephone helpline); text: 087 260 9090.
- Pieta House 24-hour suicide helpline on 1800 247 247 or text HELP to 51444.
- Aware.ie 1890 303 302 (seven days a week, from 10am to 10pm).
- Alternatively, you can find information about your nearest helpline at <http://www.suicide.org/international-suicide-hotlines.html>

Appendix D

Demographics

About you:

What is your gender?

- Female
- Male
- Prefer not to say

How old are you?

How long ago did you leave your former religion? (in years)

Which religion were you formerly a member of? (specific)

Appendix E

Multidimensional Scale of Perceived Social Support (MSPSS)

These questions ask about your relationships with family, friends and special person. Read each statement carefully and tick the box that best indicates how you feel about that statement.

1 = Very Strongly Disagree 2 = Strongly Disagree 3 = Mildly Disagree 4 = Neutral 5 = Mildly Agree 6 = Strongly Agree 7 = Very Strongly Agree

1. There is a special person who is around when I am in need.
2. There is a special person with whom I can share my joys and sorrows.
3. My family really tries to help me.
4. I get the emotional help and support I need from my family.
5. I have a special person who is a real source of comfort to me.
6. My friends really try to help me.
7. I can count on my friends when things go wrong.
8. I can talk about my problems with my family.
9. I have friends with whom I can share my joys and sorrows.
10. There is a special person in my life who cares about my feelings.
11. My family is willing to help me make decisions.
12. I can talk about my problems with my friends.

Appendix F

Goldenberg's Depression Scale

These questions ask about your mood and feelings over the last 10-14 days. Please read each statement and tick the box that best indicates how you have felt in the last 2 weeks.

0 = Not at all 1 = Just a little 2 = Somewhat 3 = Moderately 4 = Quite a lot 5 = Very much

1. I do things slowly.
2. My future seems hopeless.
3. It is hard for me to concentrate on reading or other tasks.
4. The pleasure and joy has gone out of my life.
5. I have difficulty making decisions.
6. I have lost interest in aspects of life that used to be important to me.
7. I feel sad, blue, and unhappy most of the time.
8. I am agitated and restless much of the time.
9. I feel fatigued.
10. It takes great effort for me to do simple things.
11. I feel that I am a guilty person who deserves to be punished.
12. I feel like a failure.
13. I feel lifeless - more dead than alive.
14. My sleep has been disturbed: too little, too much, or broken sleep.

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15. I spend time thinking about how I might kill myself.
16. I feel trapped or caught.
17. I feel depressed even when good things happen to me.
18. Without trying to diet, I have lost, or gained, weight.

Appendix G

The Modified Perceived Stress Scale (PSS-10)

These questions ask about your feelings and thoughts during the last month. For each question, pick the response that best indicates how often you have felt or thought that way.

0 = Never 1 = Almost Never 2 = Sometimes 3 = Fairly Often 4 = Very Often

1. In the last month, how often have you been upset because of something that happened unexpectedly?

2. In the last month, how often have you felt that you were unable to control the important things in your life?

3. In the last month, how often have you felt nervous and “stressed”?

4. In the last month, how often have you felt confident about your ability to handle your personal problems?

5. In the last month, how often have you felt that things were going your way?

6. In the last month, how often have you found that you could not cope with all the things that you had to do?

7. In the last month, how often have you been able to control irritations in your life?

8. In the last month, how often have you felt that you were on top of things?

9. In the last month, how often have you been angered because of things that were outside of your control?

10. In the last month, how often have you felt difficulties were piling up so high that you could not overcome them?

Appendix H

Perceived Global Ostracism

This section contains a list of statements that relate to your feelings about your interactions with other people. For each statement, please choose the response that best indicates how often you had this experience during the last 6 months.

1 = Never, 2 = Once in a while, 3 = Sometimes, 4 = Fairly often, 5 = Often, 6 = Constantly, 7 = Always).

1. Others ignored you.
2. Others left the area when you entered.
3. Your greetings have gone unanswered.
4. You involuntarily sat alone in a crowded room.
5. Others avoided you.
6. You noticed others would not look at you.
7. Others shut you out of the conversation.
8. Others refused to talk to you.
9. Others avoided you as if you weren't there.
10. Others did not invite you or ask you if you wanted anything.

Appendix I

Perceived Religious-Based Ostracism

This section contains a list of statements that relate to your feelings about your interactions with members of your former religious group. For each statement, please choose the response that best indicates how often you had this experience during the last 6 months.

1 = Never, 2 = Once in a while, 3 = Sometimes, 4 = Fairly often, 5 = Often, 6 = Constantly, 7 = Always

1. Other members of your formal religion group ignored you.
2. Other members of your formal religion group left the area when you entered.
3. Your greetings have gone unanswered by members of your formal religion group.
4. You involuntarily sat alone in a crowded by the members of your former religious group room.
5. Other members of your formal religion group avoided you.
6. You noticed other members of your formal religion group would not look at you.
7. Other members of your formal religion group shut you out of the conversation.
8. Other members of your formal religion group refused to talk to you.
9. Other members of your formal religion group avoided you as if you weren't there.
10. Other members of your formal religion group did not invite you or ask you if you wanted anything.