Assessing How Spirituality Shapes Cognition; Impacting Life Satisfaction & Prosocial Behaviour Across Age & Education

Ryan Mc Dermott

Submitted in partial fulfilment of the requirements of the BA Hons in Psychology of Dublin Business School, School of Arts, Dublin.

Supervisor: Dr. John Hyland

Course Leader: Dr. Rosie Reid

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Department of Psychology

Dublin Business School

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Declaration

'I declare that this thesis that I have submitted to Dublin Business School for the award of BA (Hons) Psychology is the result of my own investigations, except where otherwise stated, where it is clearly acknowledged by references. Furthermore, this work has not been submitted for any other degree."

Signed: Ryan Mc Dermott

Student Number: 10378249

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Abstract

The purpose of this quantitative mixed design study was to examine spirituality across a broad religious and non-religious context, while investigating the associated role of prosocial behaviour, life satisfaction, level of education and age. A convenience sample consisting of the general Irish population (n = 140) was adopted, involving males (n = 58) and females (n = 82) across different age groups and levels of education. Participants completed a self-report questionnaire comprising of the Prosocial Scale for Adults (Caprara G. V., 2005), the Satisfaction with Life Scale (Diener E. D., 1985), and the Beliefs and Values Scale (King, 2006). Analyses revealed both prosocial behaviour and life satisfaction were significantly correlated to spirituality and significant differences were observed between spirituality and level of education. No significant differences were found between age and spirituality, however components of every analysis proved useful for further research. Application of the current study was discussed along with future implications.

1.0 Introduction

Throughout history, humankind established a multitude of distinct ideologies pertaining to the cosmological forces that represent a "higher power" in the universe. People all over the world have long debated the existence of god, however, in today's world, where the scientific method has proven effective in the secularisation of societal positions regarding religion, there now exists a diverse spectrum of believers and non-believers of faith. Religiosity and spirituality are intricately connected constructs that describe peoples' fundamental beliefs about existence and form attitudes and behaviours across many different cultures (Baumsteiger, 2015). Many of the world's religions may contain various aspects of faith, the divine and supernatural beings, while spirituality has contemporarily come to be associated with the internalised well-being of the individual, focusing on mind-body-spirit paradigms (Heelas, 2009; Mercadante, 2014). Both are often dismissed as forms of escapism; however, these simplistic and stereotypical views fail to consider the role religious or spiritual cognitions play in peoples' attempts to find some sort of significance in their lives (Pargament K. L., 1995). Although it's clear there are distinct differences between these two concepts, the words "religiosity" and "spirituality" are often used synonymously. Therefore, for the purpose of this investigation a degree of plurality will be adopted, with the view of spirituality existing as a multidimensional construct comprised of both religious and non-religious spiritual practices (Ammerman, 2010).

As no formal statistics directly measuring spirituality exist within Ireland today, figures solely relating to religious practices must instead be taken for guidance. According to the Central Statistics Office, 3.7 million people, or approximately 78% of the country's population identified as Roman Catholics in 2016, making it the most popular national religion. In contrast to this, over 468,000 people, or one in ten, claimed to belong to no religion, displaying a 73.6% increase from 2011, effectively making "no religion" the second largest group following Roman Catholics within Ireland today (Central Statistics Office, 2016). This is particularly relevant in terms of the current investigation, as this sharp decrease in religiosity within Irish society further demonstrates the country's steady rise of secularism. A breadth of research exists which investigates the link between spiritual beliefs and prosocial behaviour (Miyatake, 2017; Vinothkumar, 2015), as well as spiritual beliefs with satisfaction with life (e.g. Taghiabadi, 2017; Zullig, 2006), but little research exists with a focus on these variables combined. By additionally examining level of education and age group as variables of interest, this provides a more detailed analysis pertaining to the mystery of what makes an individual spiritual, and how exactly it impacts their life.

1.1 Spirituality

The term spirituality has progressively come to mean different things to people over time. McCarroll (2005) conducted a survey of reviews and found little agreement among twenty-seven explicit definitions. While no single, widely agreed upon definition of spirituality currently exists, researchers have gradually found some common universalities in their attempts at formalising the term. Armstrong (1995) claimed spirituality referred to the presence of a relationship with a higher power in the world, while Cook-Greuter (2000) thought spirituality was an experience meant to create meaning in one's life. Spirituality today is generally associated-with an existential perspective on life, death, and the nature of reality. Koenig (2012) defines spirituality as:

a personal quest for understanding answers to the ultimate questions about life, about meaning, and about relationship with the sacred or transcendent, which may (or may not) lead to or arise from the development of religious rituals and the formation of a community. (p. 18)

More contemporary definitions generally agree upon transcendence as being a core component of the term (Tse, 2005). Transcendence involves going above or beyond the "self". The object of one's transcendence can be a God, another person or one's self, or even nature and the universe. As mentioned above, the words 'religion' and 'spirituality' are often used interchangeably, therefore for the purpose of this research, no clear differentiations will be made between traditional religious spirituality and non-religious spirituality. Religiosity is accordingly perceived as but one facet of the all-encompassing umbrella term spirituality, with data collection methods reflecting this (King, 2006). The Beliefs and Values Scale is a 20-point self-report Likert scale which measures spirituality across a broad religious and non-religious perspective. Investigation of the spiritual belief spectrum may be useful for psychologists in determining psychological factors which are shaped by one's cognitive worldview, and as a result, influence different aspects of human behaviour. Being aware of how beliefs can affect people is extremely important as someone's beliefs may be a part of their problems, or potentially may even be part of a solution (Pargament, 2001). As research shows, the complexity associated with spiritual practices means people cannot view the matter as simply black or white, nor can people be categorised as merely spiritual or not. There appears to be much more diversity involved (Smith, 2004).

An abundance of research on spirituality has been explored over the last several decades, as claims from many studies have asserted a wide range of benefits as a result of the inclusion of spiritual practices in peoples' lives. While not yet fully understood, perhaps the primary beneficial aspect of spirituality revolves around the potential for boosted health outcomes. Ellison (2008) asserted that spirituality can lead to improved morale, life satisfaction and happiness. Joshanloo (2010) found a positive correlation between mental well-being and spirituality among healthy participants and participants experiencing a range of psychological disorders or physical illnesses. Research has also found that people who identify as being spiritual generally tend to be more optimistic than those who do not (Schuurmans-Stekhoven 2011), while those same spiritual people are more likely to experience higher intrinsic meaning in their lives (Park, 2013). Other investigations have found that among people with terminal diseases, spiritual or religious perceptions may actually be more important than any objective assessments in determining the quality of life of patients (Patel, 2002). Steinhauser (2000) found similar results among patients dealing with the end of life. Physicians tended to focus more on the physical aspects of quality of care, while patients placed a higher regard for psychosocial and spiritual factors.

Much research has explored the power of belief in spirituality in terms of positive effects associated with well-being (Ano, 2005). Several studies show promising results for combatting against challenging issues such as depression, grief and coping. (Doolittle, 2004). Walsh (2002) found among 135 close friends and relatives of patients with terminal illness, people who proclaimed stronger spiritual beliefs appeared to resolve grief faster and more effectively following the death of a close other, compared to people without spiritual beliefs. Becker (2007) established complementary results, as a meta-analysis of research containing a total of over 5700 participants found that 94% of studies displayed positive efects of spiritual

or religious beliefs on bereavement. However, conflicting research also exists and refutes such claims. Johnston Taylor (1999) reported that some spiritualy-inclined cancer patients experienced negative effects as a result of praying, a form of religious coping. Other researchers allege past research on the subject to be difficult to interpret due to the lack of agreement in parameters used to define and measure spirituality (Schuurmans-Stekhoven, 2013). Research has led some psychologists to speculate whether spirituality may possibly be a benign subtype of psychosis (Claridge, 2010). Although not fully understood, it's clear that the benefits of partaking in any sort of spiritual practice is highly valuable.

1.2 Prosocial Behaviour

Any voluntary behaviour that benefits others or promotes harmonious relations with others can be defined as prosocial behaviour (PSB) (Fabes, 1999). This form of empathetic demeanor includes several distinct forms, all of which reflect either altruistic, proactive or reactive functions. Altruistic PSB refers to helping others without expecting anything in return, such as helping the homeless. Proactive PSB is attributed to self-benefiting behaviours, such as donating to charity for public recognition. Reactive PSB involves helping someone in need, which may occur in high-risk situations, such as when an elderly person has a fall (Findley-Van Nostrand, 2018). Having reviewed existing literature on prosocial behaviour measurement, The Prosocialness Scale for Adults (PSA) was deemed the most appropriate measurement tool for quantifying this subjective concept in terms of the current investigation. The PSA was created with guidance from key developmental research, which clearly indicates how prosocial behaviour primarily finds expression in behaviours of sharing, helping, feeling empathic with, and taking care of others (Caprara, 1997). Research has consistently shown a correlation between the degree to which an individual is spiritual or religious and the degree to which they engage in prosocial behaviours (Afolabi, 2014; Bonner, 2003; Musick, 2007; Pichon, 2007) PSBs are complex, heavily contextually dependent behaviours that hinge on an individual's specific cognitions and emotions. Zemore (2004) found among recovering alcoholics, those who scored high for daily spiritual experiences were more likely to help other recovering alcoholics and engage in prosocial behaviours. However, the idea that religious people are prosocial while non-religious people are not, appears to be intrinsic to religious stereotyping, with little evidence baring support for this conclusion (Harper, 2007). World religions proclaim prosocial values (Habito, 2006), however it's unclear whether these values translate into tangible behaviours (Neusner, 2005). Numerous studies have also contrarily found a negative association between religiosity, spirituality and genuine altruism (Decety, 2015; Saroglou, 2006).

Morality unites a society by limiting infringements upon the rights of society members, and the concept of a moralising god, which is prevalant across many religious and spiritual backgrounds, creates effective inviolable moral rules from which society members are kept in check (Roes, 2003). Rossano (2007) claimed that the belief in supernatural forces in life perhaps influenced our ancestors to work together and behave more socially responsibly than they would have otherwise. This leads to question whether people act selflessly out of free-will, or due to the belief of an omnipotent power watching over then. As kin selection details the prosocial attitude individuals display with their families, it can be posited perhaps that social forces such as religious or spiritual beliefs are necessary in order to extend those attitudes beyond one's kin and into society (Atran, 2010). As most of the

research pertaining to prosocial behaviour principally focuses on the behaviour of children or adolescents (Hardy, 2005; Li, 2015; Pandya, 2017; Singh, 2010; Vinothkumar, 2015), the current investigation's measurement of prosocial behaviour using a purpose built tool for adults should provide a more generalisable contribution to the field for future research. By determining whether spiritual beliefs mediate prosocial behaviours, this may potentially provide researchers with confirmatory results that allow for methods of spirituality inclusion to be considered for future healthcare poilcies within society (Arnold, 2002; Drescher, 1995).

1.3 Life Satisfaction

Life satisfaction is a comprehensive assessment of feelings and attitudes about one's life at a particular point in time ranging from negative to positive. It's one of the three major indicators of well-being; life satisfaction, negative affect, and positive affect (Diener E. a., 1984). It's referred to as an appraisal of the overall conditions of life as derived from a comparison of one's idealised life to one's actual lived-in reality. In general, spiritual people report more happiness and life satisfaction than nonspiritual people (Lo, 2002). Life satisfaction can be most reliably measured through the use of Diener's (1985) Satisfaction with Life Scale, which is a five item questionnaire that measures the general extent an individual is intrinsically content. A great deal of interest has been taken into the relationship between religious beliefs and satisafaction with life within positive psychology and according to systematic reviews, religious practices are related to higher life satisfaction, happiness and positive affect (Larson, 2001; Park J. R., 2011). Life satisfaction is believed to operate as a protective psychological strength that provides a buffer against adverse life events and psychopathology, in that potentially negative experieces may be construed in a more generally positive context, which results in more positive emotional reactions and coping behaviours (Suldo, 2004).

In studying cancer patients, Jafari (2010) discovered hope and spiritual well-being as factors that played a major role in mental health adjustment and life satisfaction. Emmons, (1998) found among diverse samples that those who reported higher levels of spirituality also reported greater life purpose, well-being and life satisfaction. When people encounter serious problems, they tend to think more about philosophical and spiritual issues. For instance, people who are spiritually-inclined tend to deal with approaching death better than people who are not, often as a result of engaging in forms of religious coping (Roberts, 1997; Yates, 1981). Abu-Raiya (2019) lends support to this claim, as positive religious coping correlated positively with life satisfaction among over 700 muslim university students. As well as this, Ai, (2002) found among over 200 elderly patients that almost 90% of participants used religion as a coping mechanism as a means of providing a sense of control over their health and end of life, while perceptions were also observed relating to participants' beliefs concerning God's will or plan for them. It makes sense that people who possess an additional support system through spiritual or religious practice may feel more fulfilled or satisfied with their life when compared to those who lack those same supports. Laudin (2006) solidifies this interpretation of religious support, as a signifiant relationship was observed between spirituality, religiousness, life meaning and life satisfaction in over 350 recovering substance abusers. Participants who were more spiritual or religious found the recovery process more achievable than those who were not, resulting in higher levels of life satisfaction. This claim is also supported by several other studies with similar results, all conveying spiritual or

religious cognitions as invaluable for combatting addiction (Flynn, 2003; Margolis, 2000; Morjaria, 2002).

Most studies investigating spiritual beliefs with life satisfaction analyse datasets of indiviudals who are unwell, however other studies have also been conducted which look at the effects of spiritual cognitions on healthy individuals. Lewis (1996) found among 150 undergraduate students that no relationship was observed between spirituality and life satisfaction. It's evident from the mounting body of research that spirituality has some sort of relationship with psychological adjustment, as most studies suggest, however, as some individual studies claim resulting effects of detrimentality, and some still assert no relationship at all, it's unclear as to the exact level of significance that exists between the two variables (Gauthier, 2006; Hackney, 2003). Underwood (2002) affirmed that spiritual or religious beliefs may well be "social support from the divine" (p. 31), which effectively echoes the current study's investigation of exploring whether spirituality contributes to influencing humans' psychological well-being. If one's belief system has the power to control how one feels about life, these mental manifestations have the potential to be reasonably pragmatic in terms of shaping cognition if controlled. This perception may be evidenced upon examination of secular congregations which exist worldwide. These spiritual mass gathering groups resemble traditional places of godly worship, yet individuals in attendace often ascribe to more non-religious belief systems. By choosing to be a part of such organisations it's believed perhaps that people can manipulate those cognitive processes and reap the many psychological benefits often associated with the inclusion of spirituality into daily life, as mentioned above (Price, 2018).

1.4 Age Group

A particularly interesting and relevant factor to consider when investigating the spiritual belief spectrum is consideration of a person's age. Some research argues that religiosity remains relatively stable throughout life, suggesting that patterns developed before early adulthood generally set the norm for religious behaviours in later life. This is known as the homeostatic model of belief (Wink, 2003). Other theories of spiritual development detail individuals' expected increase in spiritual awareness, commitment, and maturity as one gets older (Mattes, 2005). For example, Bengtson (2015) established among 420 four-generation American families studied over a period of 35 years, that there was an upward drift in strength of belief and religious intensity throughout participants' adult life, while the oldest generations displayed a resurgence in religiosity in retirement. Bruyneel (2005) suggested this was due to the increased importance the elderly place on sense of belonging and community, which can often be found in religion. Contemporary research that analyses correlations between age and spirituality has many practical applications, such as the concept of positive ageing which has gained a lot of recognition as an approach to better understand the lives of adults. Positive ageing involves the numerous ways in which older adults face life challenges associated with ageing and how specific approaches allow adults to age in a more positive way. It's believed that religious or spiritual beliefs play an important role in this process (Wilkinson, 2010). However, this study also reviewed the modern changes which have been implemented to the healthcare system, which now places much less of an emphasis on religion or spirituality in practices.

Other research has looked at the association between the importance of spirituality and suicide ideation across different age groups. Nishi (2017) investigated a nationally representative sample of over 260,000 participants and assessed the relationship by conducting a multivariable logistic regression analysis stratified by age group. This study found that the importance of religious beliefs was inversely associated with suicidal thoughts across all age groups, with the stongest correlation observed in participants aged 65+, followed by participants aged 18-25. As religion is no longer as widespread, personally significant, or socially significant as in the past, it's understandable as to why people today are falling back on more unorthodox beliefs such as alternative humanistic spirituality. These results may prove undoubtedly substantive in terms of the current investigation, as it emphasises the health benefits associated with religiosity as a protective factor for suicide ideation, particularly in the two age demographics mentioned above. Results from the current study could possibly make a case for this concept as a prevalent phenomenon within Irish society, allowing this confirmatory research to pave the way for the adoption of more spiritually-friendly, inclusive policies in the future.

1.5 Level of Education

A collection of research has been produced throughout the years with a focus on the effects of education on spiritual beliefs, as numerous analyses have proposed both positive and negative impacts to be associated with the experience of learning. As with most obscure concepts, the answer to the underlying question appears to conclude with a conflicting denouement. Some early research in the field suggested the minor role third-level education has on spiritual beliefs (Uecker, 2007). Hurtado (2007) reported that approximately half of students who go through college maintain their original religious beliefs, while Reimer (2010) found that the college experience as a whole tends to liberalise the beliefs of some religious students. The often assumed stance on the matter is that higher levels of education leads to reduced religious practices and beliefs, in part believed to be the result of increased knowledge and exposure to scientific ideologies. Despite this, there is no definitive explanation to this complex topic and it's evident that there are several other components which influence an individual's religious perspective. For example, the religious affiliation of one's university or college may leave a lasting impression on an individual, while exposure to secular and philosophical theories are also predictors of doctrinal liberalism (Astin A. W., 2010). Some research suggests that students begin college with individualistic sets of beliefs, which are then compartmentalised and never really again engaged with in a classroom setting. These beliefs are largely private, fragmented pieces of one's identity, thus protected and maintained throughout college life (Clydesdale, 2008). Other research advises that nonreligious spirituality is on the rise. Cherry (2003) established that college students may be moving away from traditional institutional expressions of religious faith in favor of more noninstitutional expressions of spirituality. Astin (2010) further postulated a small growth in student spirituality along with an increase in the amount of students reportedly struggling with their religious faith.

Mayhew (2013) investigated the effect of campus climate on third-level students' worldview commitment among religious majority, religious minority, and non-religious students. Campus climate was quantified by analysing attitudes, behavioral norms, and perceptions of students and staff, while worldview commitment was evaluated by assessing

the degree to which participants felt commited to their worldview, as well as the meaning their worldview provided for their life and the amount of thought they put into the beliefs held. Adoption of the worldview commitment construct was taken up to reflect a broad range of beliefs relating to both religious and nonreligious philosophies. Results from this study indicated that characteristics such as specific religious worldview and college major mediated worldview commitment. It's believed that students who major in fields such as business or social sciences display lower levels of worldview commitment in comparison to arts, religious, or humanities subjects. It's also believed that majoring in social sciences such as psychology or sociology equip students with a heightened capacity for critical thinking, a skill useful for questioning one's worldview functionally. While a great deal of research exists arguing educations diminishing effect on religiosity, some conflicting research also works to contradict such assertions (Brown, 2007). Lee (2007) indicated that secondary school students' religiosity is significantly related to bacherlor's degree attainment when controlling for other factors such as locus of control, parental involvement, self-concept, and prior academic performance. It's unclear as to the exact effect education holds over spiritual beliefs, however it's now evident that the answer is far more complex than previously thought (Coreno, 2002). Most studies which aim to uncover this significance solely rely on student samples for analysis, contributing to the ambiguous results. Self-reported changes in spiritual belief are also susceptible to social desirability bias and memory distortion. A number of factors relating to education are responsible for shaping one's beliefs, all of which are highly individualistic in nature and depend on various personal characteristics which reflect the unique realities students live in, across dynamic religious and non-religious perspectives. By examining these variables in the present investigation, clarifications can be made in relation to results comparative to previous research in the field.

1.6 Current Study

The difficulty in explaining the intricacies associated with one's cognitive worldview is evident, as this deeply personal phenomenon experienced as part of the subjective self involves highly individualistic internal processes that work to operate the functionality of the human mind. The ways in which life can be shaped by an individual's spiritual beliefs has sought to be understood since the inception of psychological research in the field of spirituality. Much of the research that was undertaken focuses primarily on the health benefits of spirituality, rather than looking at how one's spirituality affects other factors influenced by cognition. Little research exists that focuses specifically on the varying degrees of spirituality as a measure, as almost all studies in the field instead centre on aspects of religiosity. Few studies looked at the broad scope of spirituality as an expansive factor containing religious and non-religious forms, which again led to findings dividing out the two, and inhibited any possibility for comparative results relating to the current study's belief spectrum analysis. As Wilkinson (2010) pointed out, non-religious spiritual belief-based coping can be as effective as religious belief-based coping, therefore unifying these two dimensions could prove useful for psychologists in determining the wide prospective benefits of a united spiritual belief system.

The relationship between spirituality and satisfaction with life has been measured in several studies over the years, however, confounding results from many studies has led to somewhat inconclusive interpretative ability in determining the effect spirituality may have

on life satisfaction. The unification of non-religious and religious forms of spirituality could afford the present study novel insights and perhaps never seen before significance in deciphering whether people who identify as more spiritual indeed report higher levels of satisfaction within their lives. The same can be said for prosocial behaviour, as preceding research has concentrated on participants' level of prosocial behaviour across a strict measure of religiosity. In order to more extensively address some of the confounding variables which may mediate these beliefs, the current study also takes care to measure participants' age and level of education, which have both displayed relational significance in determining spirituality. With these variables together in mind, a stronger analysis can be performed in terms of unravelling the impact spirituality has on cognition. It's evident from previous research that there are considerable health benefits associated with adopting a spiritual lifestyle, yet some contemporary research suggests that spirituality is on the decline (Eisgruber, 2006). The current study's wide scope allows for confirmatory research to be conducted to allow clarifications based on previous analyses, but it may also lend future support towards informing healthcare policy and legislation, in terms of inclusive practices and raising awareness on simple, effective practices.

1.7 Formulation of Hypotheses
The above research has led to the formulation of these hypotheses.

Hypothesis One

It is hypothesised that there will be a significant positive correlation between participants' prosocial behaviour and spiritual belief scores.

Hypothesis Two

It is hypothesised that there will be a difference in participants' spiritual belief scores depending on their age group

Hypothesis Three

It is hypothesised that there will be a significant difference in participants' level of spiritual belief depending on their level of education.

Hypothesis Four

It is hypothesised that there will be a significant positive correlation between participants' life satisfaction and spiritual belief scores.

2.0 Methodology

2.1 Participants

Descriptive statistics were used to gather information surrounding the sample. The investigation consisted of 140 respondents who were taken from the general Irish population as a convenience sample. The Participants were sourced through social media as a result of sharing an online survey on Facebook, Instagram and Snapchat. Participation in the study was conducted on a voluntary, anonymous basis, which was stated at the beginning of the survey. The only restriction placed upon participation was the need to be at least 18 years of age. Participants could belong to any race, gender, socio-economic background or religion. The respondents had a mean age of 35 years (SD = 1.10) with a range from 18 - 80. There were more female (58.2%, n = 82) than male (41.4%, n = 58) participants. Over 57% (n = 81) of participants reported to have previously completed post-secondary school education, with 44.7% of those being at undergraduate level (n = 63), 10.6% being at postgraduate level, and 2.1% at PhD level (n = 3). The other 41.9% of participants did not complete third-level education (n = 49), among which 34.8% completed their leaving certificate (n = 49) and the other 7.1% reported to have completed some secondary school (n = 10). No incentives were offered to participants to participate.

2.2 Design

The current study employed a quantitative cross-sectional non-experimental design, considered confirmatory research by nature. A combination of psychological and demographic variables were measured in order to assess the differences between spiritual belief scores. A differential design was used to investigate hypotheses 2 and 3, while a correlational design was adopted in order to investigate hypothesis 1 with the variables involved. The study adopted a non-purposive convenience sampling approach. Psychological variables which were measured include prosocial behaviour and life satisfaction. These variables were assessed in order to highlight any potential differences among the gathered spiritual belief spectrum scores. Demographic variables which were included were participants' age and level of education, both of which were used for establishing significant differences among participant spiritual beliefs. Gender was also recorded for the purpose of descriptive statistics.

Hypothesis 1 employed a correlational design aimed to assess whether a significant relationship existed between participants' prosocial behaviour scores in relation to their level of spirituality. The predictor variable for this hypothesis was prosocial behaviour, while the criterion variable was spiritual beliefs.

Hypothesis 2 employed a differential design aimed to investigate whether a statistical difference existed between participants' spiritual belief scores depending on their age group and level of life satisfaction. The independent variables for this hypothesis were age group and life satisfaction, while the dependent variable was spirituality.

Hypothesis 3 likewise adopted a differential design and aimed to investigate whether differences existed between participants' spiritual belief scores depending on their level of

education. The independent variable for this hypothesis was level of education, while the dependent variable was spiritual belief.

Finally, hypothesis 4 involved the use of a correlational design aimed at assessing whether a significant relationship existed between participants' life satisfaction and spiritual belief scores. The predictor variable for this hypothesis was life satisfaction, while the criterion variable was spiritual beliefs.

2.3 Materials

The materials used for this study consisted of a 44-item questionnaire created on Survey Monkey. The first page contained an introduction which informed respondents of the confidentiality and anonymity of responses, as well as the inclusion criteria and the right to withdraw. Participants were asked to confirm that they were at least 18 years of age before being able to proceed with the survey. Respondents were also asked to declare whether they agreed with the outlined terms and conditions, therefore making it clear that informed consent was granted. It was made clear that once participation was complete, participation could not be withdrawn due to the anonymity of responses (see Appendix A).

The demographic questions were asked to clarify age, gender and level of education (see Appendix B).

The following standardised questionnaires were used to examine the variables earlier specified: The Satisfaction with Life Scale (Diener E. D., 1985) (see appendix D), The Prosocialness Scale for Adults (Caprara G. V., 2005) (see Appendix C) and The Beliefs and Values Scale (King, 2006) (see Appendix E).

Upon completion of the survey, participants were presented with a debrief sheet (see Appendix F), which explained the nature of the study and guided participants to support services if they felt any unease from participation.

2.4 Measures

C) The Satisfaction with Life Scale (SWLS) is a 5-item scale that measures global cognitive judgements of one's life satisfaction. Examples of questions from the SWLS include "In most ways my life is close to my ideal" and "I am satisfied with my life". Each item is measured using a 7-point Likert scale with scores ranging from (1) *strongly disagree* to (7) *strongly agree*. There are no reverse scored questions. The SWLS has proven itself as a valid and reliable measure of life satisfaction, suitable for a wide range of applications and age groups. It's also reported to have a high convergence of self- and peer-reported measures of life satisfaction and subjective well-being and provides strong evidence for subjective well-being as a stable and global phenomenon (Diener E. D., 1985). Total scores for the SWLS range from 5 to 35, with higher scores indicating a higher level of satisfaction with life. Cronbach's alpha was reportedly between ranges of 0.79 and 0.8 (López-Ortega, 2016).

D) The Prosocialness Scale for Adults (PSA) consists of a 16-item questionnaire used to assess individual differences in adult prosocial behaviour. Examples of questions from the

PSA include "I am emphatic with those who are in need" and "I am willing to make my knowledge and abilities available to others". Each item is measured using a 5-point Likert scale with scores ranging from (1) *Never/Almost Never True* to (5) *Almost Always/Always True*. There are no reverse scored questions. The PSA has high reliability and validity and was created with guidance from key developmental research, which clearly indicates how prosocial behaviour primarily finds expression in behaviours of sharing, helping, feeling empathic with, and taking care of others (Caprara G. B., 1997). The scale was created by employing an Item Response Theory analysis of data collected rom other 2500, which determined the survey to be effective in measuring prosocial behaviour. Total scores for the PSA range from 16 – 80, with higher scores indicating higher levels of prosocial behaviour. Cronbach's alpha for all statements for the entire set of items was 0.91 (Caprara G. B., 1997).

E) The Beliefs and Values Scale (BaVS) consists is a 20-item scale that measures spirituality across a broad religious and non-religious perspective. This scale has a high-retest and internal reliability. Respondents are instructed to report their attitude to statements and each item is measured using a 5-point Likert scale with scares ranging from (0) *Strongly Disagree* to (4) *Strongly Agree*. Total scores for the BaVS range from 0 – 80, with higher scores indicating higher levels of spiritual belief. Examples of items on the BaVS include "I believe God is an all-pervading presence" and "I am a spiritual person". There are no reverse scores questions. The advantage of this scale is its ability to tap spiritual beliefs that exist outside of traditional contexts. Cronbach's alpha for all statements was high at 0.93.

2.5 Data Analysis

The data was collected by means of a self-report questionnaire created on Survey Monkey. The data retrieved via Survey Monkey was downloaded into a Microsoft excel file, which was then coded and imported onto the statistical software programme IBM SPSS Statistics Data Editor. SPSS was then used to further recode and prepare the data obtained for statistical analyses.

2.6 Procedure

The beginning of the investigation involved receiving ethical approach from the Dublin Business School Ethics Committee. Once this was achieved, a survey was designed and created using Survey Monkey, which was then shared across several social media platforms, including Facebook, Instagram and Snapchat. This was shared along with a brief message explaining the nature of the study and requirements for participation, namely the age requirement of at least 18 years. Once participants clicked into the survey link, an introductory information sheet was presented, which explained the anonymous and voluntary nature of the research in more detail. Participants were informed that completion of the survey would render their right to withdraw from the research void, as specified when asking participants to consent to this process. Upon providing consent, participants were asked to complete a series of demographic and psychometric questions within the questionnaire (see Appendices C-E). The average response time for survey completion according to Survey Monkey was almost 6 minutes. Upon completion of the survey, participants were thanked for

their participation and provided with a debrief sheet, which explained the nature of the survey in more detail. Also listed were several mental health services such as Samaritans and AWARE in case of the unlikely event that the survey created any negative feelings for participants. Also provided were details of the researcher and study supervisor in case participants should have any follow up questions about the research being investigated. Once a sufficient number of questionnaires were completed, the questionnaire was taken offline and responses were exported to a Microsoft Excel file, where it was then coded and imported to IBM SPSS Statistics Editor for further data analysis.

2.7 Ethics

First, ethical approval was sought and granted from the DBS Ethics Committee. This study was conducted in compliance with the general PSI Code of Professional Ethics as well as the DBS Ethical Guidelines for Research with Human Participants. Participants were provided with informed consent at the beginning of participation, in which they were explained that the responses would be strictly used for research purposes. Also explained was the status of anonymity the questionnaire held, as no personal details were sought which could be used for personal identification. Respondents were asked to confirm they were at least 18 years old to quality for participation. Any responses which indicated the respondent was under the age of 18 were discarded. Extra caution was taken in creating the survey with neutral language in order to be mindful of the sensitive issues discussed, particularly religion and one's values and opinions of themselves. This ultimately ensured all respondents' views were respected. Storage and dissemination of the data obtained was discussed. Support services were included on the final page of the debrief sheet in case participants experienced any negative emotions following survey completion.

3.0 Results

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3.1 Descriptive Statistics

As noted in the participant section, descriptive statistics were used to analyse the variability of participants and describe the distribution of demographic variables, namely gender, age and level of education. The summarised statistics indicated that 82 females (58.8%) and 58 males (41.2) respectively participated in the survey, consisting of a total of 140 participants.
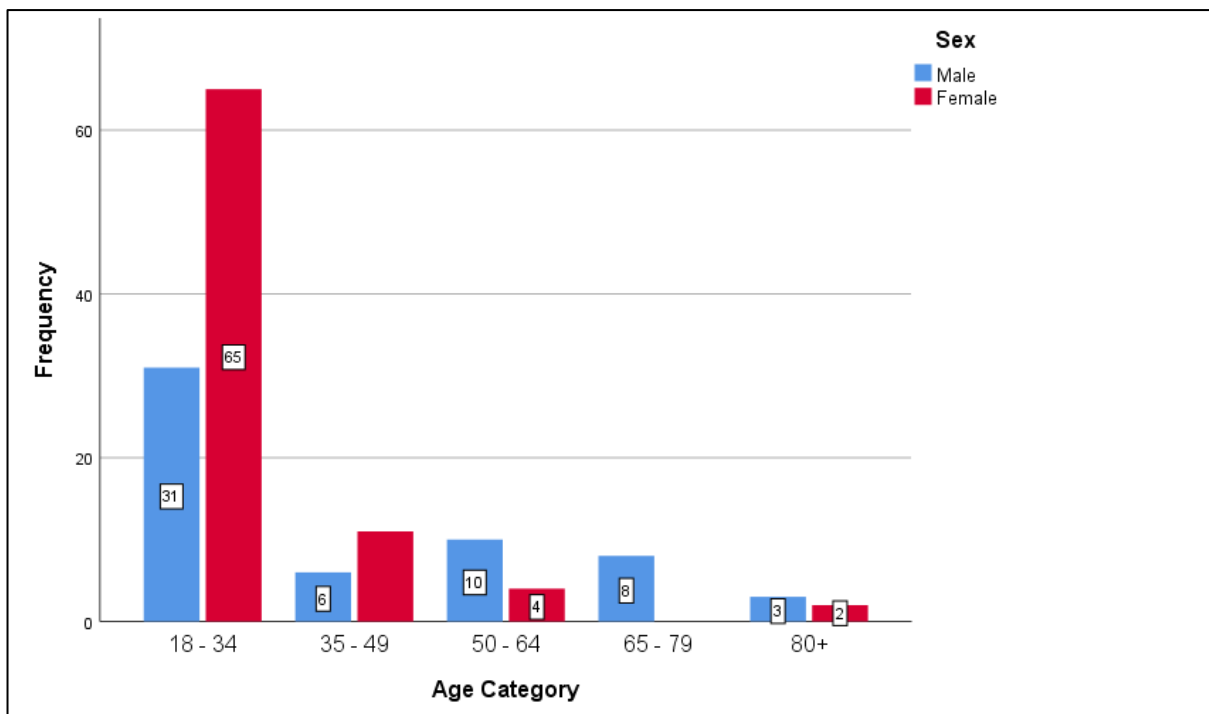

Figure 1: Bar chart representing gender breakdown as per age group category

The above clustered bar chart indicates that the sample ranged from 18 – 80+ with the majority of participants being found in the 18 – 34 category (N = 96). It also displayed that there are considerably more female participants (N = 82) than male (N = 58). Descriptive statistics were also used to asses the mean scores of spiritual beliefs, prosocial behaviour and life satisfaction.

Variable	Mean	SD	Min	Max	Skewness	Kurtosis	Cronbach's α
Spiritual Beliefs	24.40	15.26	1.00	57.00	.25	-.62	.96
Prosocial Behaviour	62.19	10.81	24.00	80.00	-1.19	2.00	.92
Life Satisfaction	24.34	6.40	6.00	35.00	-.66	.12	.86

Table 1: Descriptive Frequencies of Psychological Measures

As seen in Table 1, the mean average of all psychological variables are presented along with the standard deviation and Cronbach's alpha. The spiritual beliefs mean score was relatively low (M = 24.40, SD = 15.26), while the mean scores for prosocial behaviour (M = 62.19, SD = 10.81) and life satisfaction (M = 24.34, SD = 6.40) were relatively high. The variables were examined for internal consistency using Cronbach's alpha, which displayed very high reliability, all above 0.85 (see Table 1). These scores were found to be consistent with the originally reported reliability scores from where the scales were originally obtained (see Methods section). Figure 2 represents the level of education participants previously obtained, with the majority (N = 63) possessing undergraduate degrees. The next largest education group was leaving certificate (N = 49), followed by postgraduate degree (N = 15), some secondary school (N = 10) and PhD (N = 3).
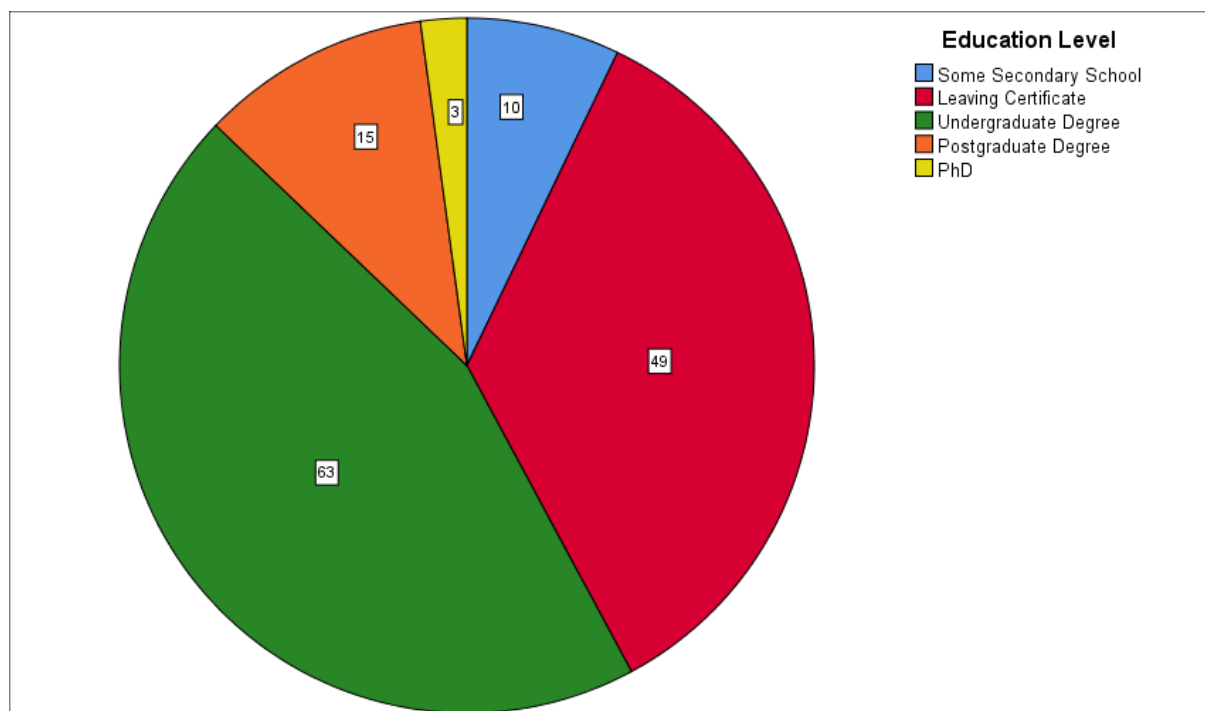

Figure 2: Pie char representing level of education breakdown

3.2 Inferential Statistics

   Hypothesis 1

   It was hypothesised that there would be a significant correlation between participants' prosocial behaviour depending on their level of spirituality. A linear regression was carried out to test this hypothesis and found that prosocial behaviour significantly predicted spiritual beliefs ($F(1,124) = 5.07$, $p < .026$, R2 = .032) (Prosocial behaviour, beta = .20, $p < .026$, CI (95%) .04, .54). Figure 3 displays this relationship effectively.
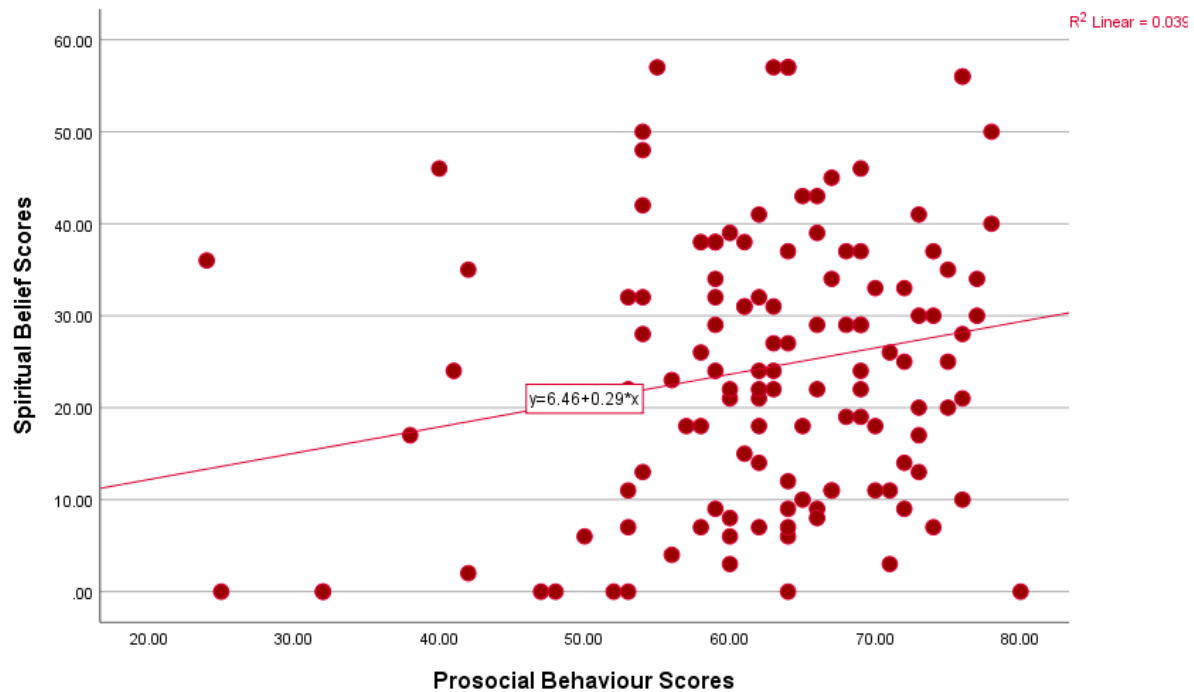

Figure 3: Scatterplot representing the correlation between prosocial behaviour and spiritual belief scores

   Hypothesis 2

   It was hypothesised that there would be differences in participants' spiritual belief scores depending on their age group. A one-way between groups analysis of variance was carried out in order to examine those differences between the different age groups. Age group scores were divided among the 5 groups mentioned in figure 1. ($F (4, 122) = .53$, $p < .71$). As the ANOVA was not significant, no post hoc tests were reported. Figure 4 below displays the results of the ANOVA.
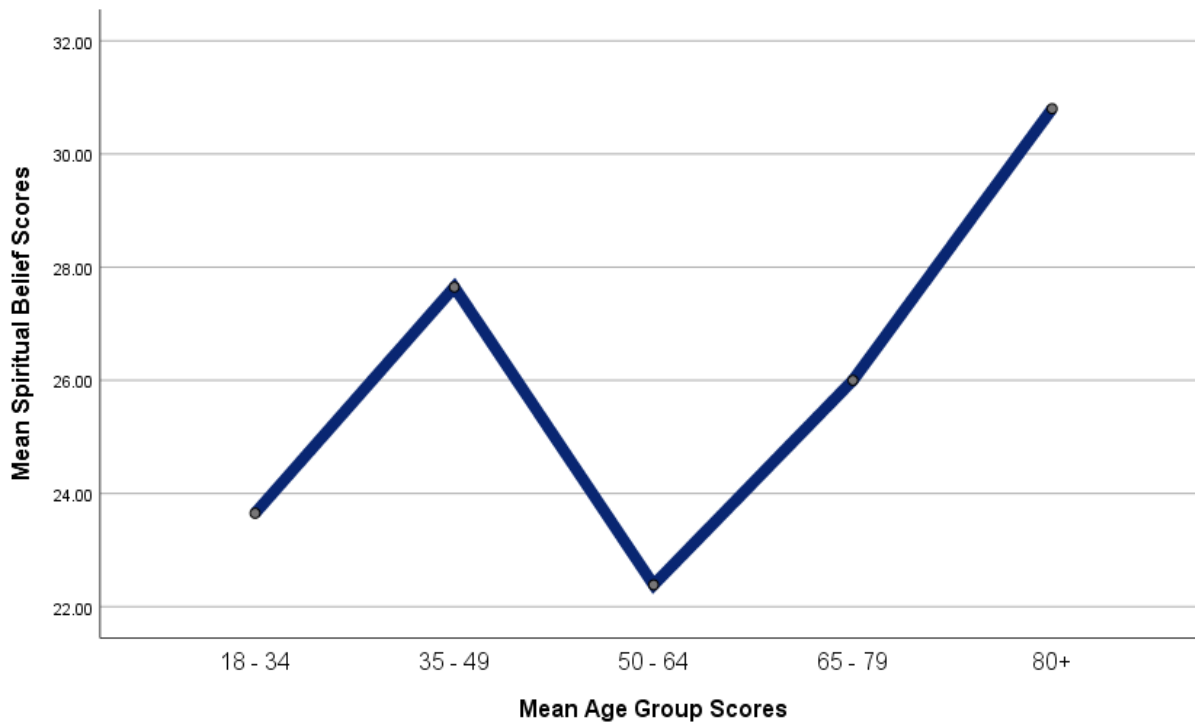
Figure 4: Means plot displaying spiritual belief scores among different age groups.

Hypothesis 3

It was hypothesised that there would be a significant difference between participants' spiritual beliefs depending on their level of education. A one-way analysis of variance was performed to assess these differences effectively between the 5 levels of education ($F_{(4, 122)}$ = 3.52, p < .039). More specifically Tukey HSD post hoc analyses highlighted that the "Some secondary school" group had significantly higher spiritual beliefs than the "Leaving certificate" group (Mean difference = 17.23, p = .014, CI (95%) 2.42, 32.04), as well as the "Undergraduate degree" group (Mean difference = 17.97, p = .007, CI (95%) 3.44, 32.51), and the PhD group (Mean difference = 27.78, p = .04, CI (95%) .79, 54.76) thus highlighting the significance between groups. These differences are displayed in figure 5 below.
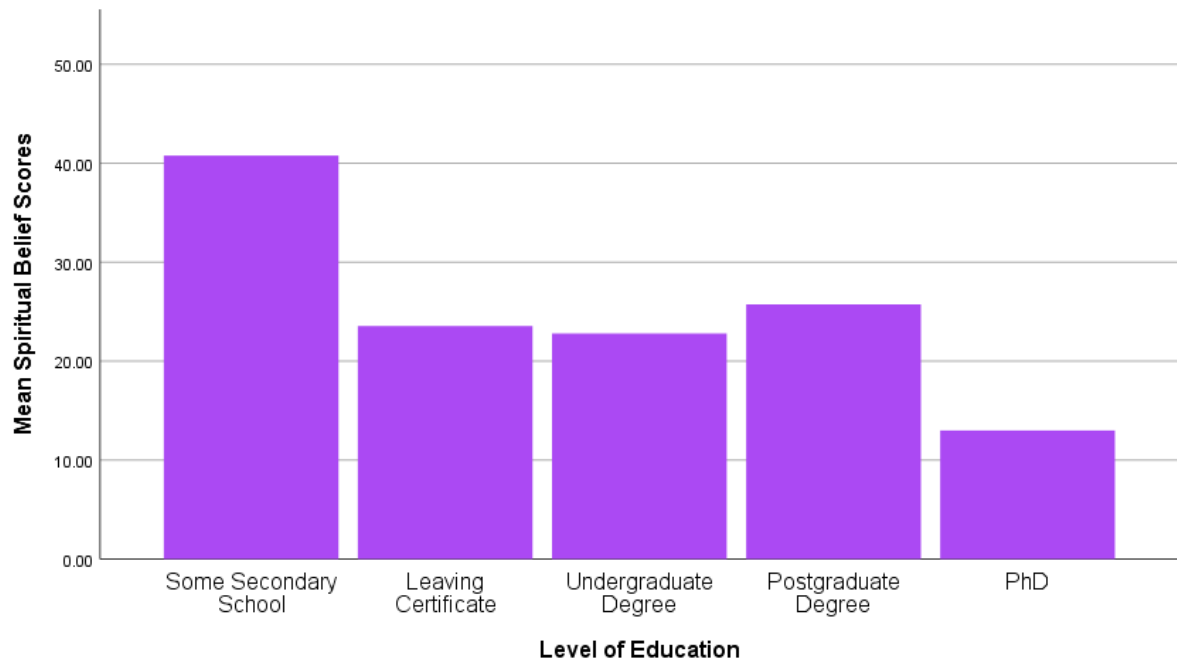
Figure 5: Bar chart representing spiritual belief differences among levels of education

Hypothesis 4

It was hypothesised that there would be a significant correlation between participants' life satisfaction and spiritual belief scores. This was investigated by performing a linear aggression on the two variables. The regression found that there was a small significant correlation between ($F(1, 123) = 3.98$, $p < .048$, $R2 = .02$) .17, $p < .048$, CI (95%) .01, .65.

4.0 Discussion

4.1 Overview

The aim of the current study was to investigate spiritual beliefs along with several different variables which have previously been linked to the concept. Specifically, this research examined the positive relationship between spiritual beliefs and prosocial behaviour, and spiritual beliefs and life satisfaction, while also assessing the differences between participant spiritual belief scores according to their age group, as well as their level of life satisfaction.

It was hypothesised that prosocial behaviour and life satisfaction would be predictors of spirituality. The results reported here indicate that prosocial behaviour and life satisfaction are associated with spirituality individually, supporting the two hypotheses. In regard to prosocial behaviour, the findings of this study are in line with Afolabi (2014), Bonner (2003), Musick (2007), Pichon (2007), which all found prosocial behaviour to be positively correlational with spirituality. This is understandable, as prosocial behaviours are heavily contextually dependent behaviours that hinge on specific cognitions and emotions, while spirituality has previously been linked to emotional stability and a range of those same emotions (Afolabi, 2014). These findings contradict those taken from Harper (2007), which stated that there was no scientific basis for religious stereotyping. However, it must be stated that this investigation was conducted using self-report measures, which can be problematic for accurate results. Self-reporting allows for broad perceptual bias and illusory superiority, where by participants overestimate their own qualities and abliities in relation to others (Hoorens, 1992). This form of cognitive bias is believed to occur most prodominantly in western cultures, which correlates with Afolabi's (2014) lack of similar findings as It was investigated within African culture (Heine, 2007). The linear regression performed found a p-value of 0.26, allowing for the rejection of the null hypothesis. The results also make sense with previous findings in relation to social responsibility. As many people who identify as spiritual believe in a higher power, the concept of a moralising god perhaps influences people to behave in a prosocial manner (Roes, 2003). The current investigation's use of the Prosocial Scale for Adults, a purpose built tool used to measure prosocial behaviour specifically in adult age demographics, provides valuable data for future research in the field.

It was hypothesised that there would be differences in participants' spiritual belief scores depending on their age group. The hypothesis was not supported as there were no differences which were statistically significant in this regard (.53). Although the current study displayed no differences in spiritual beliefs across the different age groups, the results did however support some previous findings, which suggested that spirituality increases as one gets older, with a sharp increase in late adulthood (Bengtson, 2015; Mattes, 2005). This was made clear by the one-way ANOVA which was conducted between the two variables, which demonstrated a steady increase in spiritual belief among participants who were in the latter groups, as displayed in figure 4 above. It's not entirely known as to why this increase occurs, however, one possibility is the support it provides in terms of positive ageing. Belief in spirituality is a proven method of support in assisting older people progress through their life in a more positive and meaningful way (Wilkinson, 2010). By gaining clearer insights into

the ways in which spirituality can help people, such as positive ageing, these can be of great benefit for psychologists for promoting the best ways to help people. If healthcare policies were adapted to be more inclusive towards spirituality-inclined practices, this could not only improve the well-being of a large portion of the global population, but also take off a massive amount of pressure on such healthcare systems, as well as provide economic savings.

It was hypothesised that there would be significant differences between participants' spiritual beliefs depending on their level of education. Results from a one-way ANOVA revealed significance differences between several of the education groups. Participants who had received some secondary school education, the least educated group, displayed the highest levels of spiritual belief among the entire sample. There were significant differences between that group and the leaving certificate educated participants, as well as the undergraduate degree educated participants, and the PhD educated participants. The only group which did not have significant differences with participants who had received some secondary school education was the PhD educated group. As displayed in figure 5 above, spiritual beliefs progressively dropped throughout the more educated groups of participants, with the exception of the postgraduate degree group, who displayed slightly higher levels of spiritual belief than the leaving certificate and undergraduate degree group participants. These findings are in line with previous research, as Reimer (2010) stated that the college experience as a whole tends to liberalise religious beliefs. This also correlates with Lee's (2007) study which suggested that religious beliefs are significantly related to bachelor's degree attainment. The current study elucidated other previous hypotheses regarding the idea that higher levels of education does indeed lead to lower levels of spiritual belief, as was the case within the current sample. As college students are moving away from traditional institutional expressions of religious faith in favour of more noninstitutional expressions of spirituality, this may also explain the spike in religious beliefs among postgraduate students in the current study (Cherry, 2003).

It was hypothesised that there would be a significant correlation between participants' life satisfaction and spiritual belief scores. A linear regression was performed to assess this correlation and found a minor positive relationship between the two variables. The results of this analysis paralleled findings from a range of previous studies, including several systematic reviews that indicated higher levels of spirituality are positively correlated with life satisfaction (Larson, 2001; Park J. R., 2011). It's believed that people use the belief in a higher power as an additional support for coping with life's challenges, which acts as a psychological buffer against negative life experiences (Suldo, 2004). Believing in spirituality or religiosity was believed to have a positive, beneficial effect on life satisfaction and mental well-being, with results from the current study solidifying this claim as being true among a general Irish population.

4.2 Strengths & Weaknesses

The current study has several strengths and weaknesses, some of which are complimentary, while some display cracks in the integrity of the overall investigation. For

starters, the study employed a respectable sample size of 140 participants, which aided in providing accurate and valid statistical analyses throughout the investigation. Among the 140 participants, 82 were female versus 58 males, displaying a clear gender imbalance which may have skewed the accuracy of the results in terms of possible generalisations for a general Irish population sample. Several studies indicate that females are more emotional than men, which may have led to biased overrepresentation of certain responses within the survey (Lithari, 2010). Questions relating to helping friends in need or ones which discuss the degree with which one is satisfied with their life may evoke emotional responses that alter the way in which the responses are chosen between genders. As discussed above, one major weakness of the investigation is the nature in which the data was collected. Self-reported surveys are susceptible to cognitive bias, with people generally projecting their ideal self as opposed to their actual selves. One major strength of conducting an online survey is that the entire investigation is relatively easy to replicate, with data collection methods being time and cost effective. Another major strength of the investigation is the use of the Beliefs and Values scale as a method of analysing spiritual beliefs, as very little research in the field has taken the care to analyse both religious and non-religious spiritual perspectives together. Also, the majority of studies which investigate education and spiritual beliefs together primarily assess student demographics, while the current study measured these variables across a more inclusive, general population. One disadvantage of this is the fact that there also exists a large age group gap between total participants, as the vast majority were between the ages of 18 – 34 (N = 96), as oppose to the 80+ group (N = 3). This vast gap in age group between participants questions the validity of some of the findings. Cronbach's alpha also showed good internal validity and measured scale reliability throughout.

4.3 Future Research

More research which analyses these variables is assuredly needed for the future, with some minor changes and expansions. A more equally representative sample is required for improved accuracy of results, particularly with regards to gender balance, and where measuring education, participants within each group should also be equal. As the health benefits of adopting a spiritual lifestyle are apparent from the abundance of research mentioned throughout this investigation, further research should be conducted regarding this, specifically the adoption of a spiritual lifestyle in one group of participants in comparison to a control group, in order to fully assess the implications in a scientific manner. Future research may also benefit from a longitudinal study, conducted over several years, in order to more accurately assess any relationship the participants have with spirituality, life satisfaction and prosocial behaviour throughout different points in their lives. Qualitative research involving interviews could also allow for a greater understanding of the cognitive components behind spirituality.

4.4 Implications, Applications & Conclusions

While some of the data conflicted with previous research, implications of the current investigation support key findings and illuminate other areas future research would benefit. This investigation's results could potentially provide valuable data towards a larger dataset which could solidify the proven health benefits of adopting a spiritual lifestyle, therefore future applications could include the introduction of improved healthcare policy and legislation where spiritually-inclusive practices are more heavily implemented in order to better the well-being of people in society. As the current study has displayed results which identify spiritual belief as a key component of life satisfaction and displays the decrease in spirituality people experience as they progress through life, novel interventions could be employed in order to alter that negative decrease in beliefs as one ages. This would have a positive ripple effect for the healthcare system and larger economy as concepts such as positive ageing could be more objectively embraced on a larger scale in society (Wilkinson, 2010). This study also highlighted the beneficial aspect of secular mass gatherings that exist worldwide, with results supporting their health benefits, advocating for larger scale operations of this kind throughout society (Price, 2018). The spiritual belief spectrum is a diverse continuum that extends spirituality on a broad religious and non-religious scope. Everyone has their beliefs, whether they involve a God, or an institution, or belief in one's self. The purpose of the current investigation was to scrutinise over those beliefs and inspect the parts of people's lives that are affected by them. Overall, it's evident from analyses that spirituality has meaning and is used as a cognitive mechanism in one form or another for many people in order to boost quality of life in a number of ways. Specific analyses pointed to the positive relationship spirituality has on prosocial behaviour and life satisfaction, while they also provided insights into the ways in which future health outcomes can be boosted, with the potential for change among current policy and healthcare practices. Overall, the current study partially supports the existing literature relating to the different variables impacting spiritual beliefs and further research is necessary in order to adequately determine the most impactful ways of implementing the necessary changes into peoples' lives to ultimately improve them.

References

Abu-Raiya, H. A. (2019). On the links between positive religious coping, satisfaction with life and depressive symptoms among a multinational sample of Muslims. *Interntional Journal of Psychology*, 54(5), 678-686

Afolabi, O. A. (2014). Influence of gender, spiritual involvement/belief and emotional stability on prosocial behavior among some Nigerian drivers. *Canadian Social Science*, 10(1), 121-127.

Ai, A. L. (2002). Private Prayer and Optimism in Middle-Aged and Older Patients Awaiting Cardiac Surgery. *The Gerontologist*, 42(1), 70-81.

Ammerman, N. T. (2010). The challenges of pluralism: Locating religion in a world of diversity. *Social Compass*, 57(2), 154-167.

Ano, G. G. (2005). Religious coping and psychological adjustment to stress: A meta-analysis. *Journal of clinical psychology*, 61(4), 461-480.

Arnold, R. A. (2002). Patient attitudes concerning the inclusion of spirituality into addiction treatment. *Journal of Substance Abuse Treatment, 23*(4), 319-326.

Astin, A. W. (2004). Why Spirituality Deserves a Central Place in Liberal Education. *Liberal education*, 90(2), 34-41.

Astin, A. W. (2010). *Cultivating the spirit: How college can enhance students' inner lives.* John Wiley & Sons.

Atran, S. &. (2010). The evolution of religion: How cognitive by-products, adaptive learning heuristics, ritual displays, and group competition generate deep commitments to prosocial religions. *Biological Theory*, 5(1), 18-30.

Baumsteiger, R. &. (2015). Challenges to the conceptualization and measurement of religiosity and spirituality in mental health research. *Journal of religion and health*, 54(6), 2344-2354.

Becker, G. X. (2007). Do religious or spiritual beliefs influence bereavement? A systematic review. *Pallative medicine*, 21(3), 207-217.

Bengtson, V. L. (2015). Does religiousness increase with age? Age changes and generational differences over 35 years. *Journal for the Scientific Study of Religion*, 54(2), 363-379.

Bonner, K. K. (2003). Effects of religiosity and spirituality on depressive symptoms and prosocial behaviors. *Journal of Religious Gerontology*, 14(2-3), 189-205.

Brown, I. T. (2013). Age and gender effects on the Assessment of Spirituality and Religious Sentiments (ASPIRES) scale: A cross-sectional analysis. *Psychology of Religion and Spirituality, 5(2)* 90.

Brown, S. &. (2007). Religion and Education: Evidence from the National Child Development Study. *Journal of Economic Behavior & Organization*, 63(3), 439-460.

Bruyneel, S. M. (2005). *Gerotranscendence: components and spiritual roots in the second half of life.* Available at SSRN 870233.

Caprara, G. B. (1997). Emotional instability, physical and verbal aggression, and prosocial behavior as precursors of scholastic achievement and social adjustment. *In Aggression* (pp. 111-120). Springer, Boston, MA.

Caprara, G. V. (2005). A new scale for measuring adults' prosocialness. *European Journal of psychological assessment, 21(2)* 77-89.

Central Statistics Office. (2016, April 22). *Census 2016 Summary Results - Part 1.* Retrieved from Centrl Statistics Office: https://www.cso.ie/en/media/csoie/newsevents/documents/census2016summaryresultspart1/Census2016SummaryPart1.pdf

Chauvin, J. C. (2000). Spirituality, psychotherapy, and the gifted individual. . *Advanced Development*, 9, 123-135.

Cherry, C. D. (2003). *Religion on campus.* University of North Carolina Press.

Claridge, G. (2010). Spiritual experience: Healthy psychoticism. *Psychosis and spirituality: Consolidating the new paradigm*, 75-87.

Clydesdale, T. (2008). *The first year out: Understanding American teens after high school.* Chicago: University of Chicago Press.

Cook-Greuter, S. (2000). *Creativity, spirituality, and transcendence: Paths to integrity and wisdom in the mature self.* Stamford: Greenwood Publishing Group.

Coreno, T. (2002). Fundamentalism as a class culture. *Sociology of Religion, 63(3)* 335-360.

Crowther, M. R. (2002). Rowe and Kahn's model of successful aging revisited: Positive spirituality—The forgotten factor. *The Gerontologist*, 42(5), 613-620.

Decety, J. C.-S. (2015). The negative association between religiousness and children's altruism across the world. *Current Biology*, 25, 1-5.

Diener, E. a. (1984). The independence of positive and negative affect. *Journal of personality and social psychology*, 47(5), 1105.

Diener, E. D. (1985). The satisfaction with life scale. *Journal of personality assessment, 49(1),* 71-75.

Doolittle, B. R. (2004). The association between spirituality and depression in an urban clinic. *Primary care companion to the Journal of clinical psychiatry, 6(3),* 114.

Drescher, K. D. (1995). Spirituality and trauma treatment: Suggestions for including spirituality as a coping resource. *National Center for PTSD Clinical Quarterly*, 5(1), 4-5.

Eisgruber, C. L. (2006). Secularization, religiosity, and the United States constitution. *Global Legal Studies*, 13(2), 445-472.

Ellison, C. G. (2008). Daily spiritual experiences and psychological well-being among US adults. *Social Indicators Research, 88(2),* 247-271.

Emmons, R. A. (1998). Assessing spirituality through personal goals: Implications for research on religion and subjective well-being. *Social indicators research*, 45(1-3), 391-422.

Fabes, R. A. (1999). Early adolescence and prosocial/moral behavior I: The role of individual processes. . *The Journal of Early Adolescence*, 19(1), 5-16.

Findley-Van Nostrand, D. &. (2018). Forms of prosocial behaviors are differentially linked to social goals and peer status in adolescents. *The Journal of genetic psychology*, 179(6), 329-342.

Flynn, P. M. (2003). Looking back on cocaine dependence: Reasons for recovery. *American Journal on Addictions*, 12(5), 398-411.

Gauthier, K. J. (2006). Religiosity, religious doubt, and the need for cognition: Their interactive relationship with life satisfaction. *Journal of Happiness Studies, 7(2),* 139-154.

Habito, R. L. (2006). *The Practice of Altruism Caring and Religion in Global Perspective.* Newcastle: Cambridge Scholars Press.

Hackney, C. H. (2003). Religiosity and mental health: A meta–analysis of recent studies. *Journal for the scientific study of religion, 42(1),* 43-55.

Hardy, S. A. (2005). Religiosity and prosocial behaviours in adolescence: The mediating role of prosocial values. *Journal of Moral Education*, 34(2), 231-249.

Harper, M. (2007). The stereotyping of nonreligious people by religious students: Contents and subtypes. *Journal of Scientific Study of Religion, 46(4),* 539-552.

Heelas, P. (2009). *Spiritualities of life: New age romanticism and consumptive capitalism.* John Wiley & Sons.

Heine, S. J. (2007). In search of East Asian self-enhancement. *Personality and Social Psychology Review,* 11(1), 4-27.

Hill, J. P. (2011). Hill, J. P. *Journal for the scientific study of religion, 50(3),* 533-551.

Hoorens, V. (1992). Self-serving biases in social-comparison-illusory superiority and unrealistic optimism. *Psychologica beligica*, 32(2), 169-194.

Houtman, D. &. (2007). The spiritual turn and the decline of tradition: The spread of post-Christian spirituality in 14 Western countries,. *Journal for the Scientific Study of religion, 46(3),* 305-320.

Hurtado, S. S. (2007). *Findings from the 2005 Administration of Your First College Year (YFCY): National Agregates.* Higher Education Research Institute UCLA. Retreieved May, 15, 2007.

Jafari, E. N. (2010). Life satisfaction, spirituality well-being and hope in cancer patients. *Procedia-Social and Behavioral Sciences, 5,* 1362-1366.

Johnston Taylor, E. H. (1999). Spiritual conflicts associated with praying about cancer. Psycho-Oncology:. *Journal of the Psychological, Social and Behavioral Dimensions of Cancer, 8(5),* 386-394.

Joshanloo, M. (2010). Investigation of the relation between cultural estrangement and hedonic and eudaimonic aspects of well-being in Iranian young adults. *Personality and Individual Differences, 49(7),* 733-737.

King, M. J. (2006). Measuring spiritual belief: development and standardization of a Beliefs and Values Scale. *Psychological medicine, 36(3),* 417-425.

Koenig, H. K. (2012). *Handbook of religion and health.* Oxford: Oxford University Press.

Larson, K. &. (2001). Religion and mental health: Evidence for an association. *International review of psychiatry, 13(2),* 67-78.

Laudet, A. B. (2006). The Role of Social Supports, Spirituality, Religiousness, Life Meaning and Affiliation with 12-Step Fellowships in Quality of Life Satisfaction Among Individuals in Recovery from Alcohol and Drug Problems. *Alcoholism treatment quarterly*, 24(1-2), 33-73.

Lee, S. M. (2007). The role of religiosity on postsecondary degree attainment. . *Counseling and Values, 52(1),* 25-39.

Lewis, C. A. (1996). Is religiosity associated with life satisfaction?. *Psychological Reports, 79(2),* 429-430.

Li, K.-K. a.-Y. (2015). Religiosity/spirituality and prosocial behaviors among Chinese Christian adolescents: The mediating role of values and gratitude. *Psychology of Religion and Spirituality*, 7(2), 150.

Lithari, C. (2010). Are females more responsive to emotional stimuli? A neurophysiological study across arousal and valence dimensions. Brain topography, 23(1), 27-40.

Lo, B. R.-L. (2002). Discussing religious and spiritual issues at the end of life: a practical guide for physicians. *Jama*, 287(6), 749-754.

López-Ortega, M. T.-C.-C. (2016). Psychometric properties of the Satisfaction with Life Scale (SWLS): secondary analysis of the Mexican Health and Aging Study. *Health and quality of life outcomes, 14(1),* 170.

Margolis, R. K. (2000). A retrospective look at long-term adolescent recovery: Clinicians talk to researchers. *Journal of Psychoactive Drugs, 32(1),* 117-125.

Mattes, R. (2005). Spiritual need one: Spiritual development: The aging process: A journey of lifelong spiritual formation. *Journal of Religion, Spirituality & Aging, 17(3-4),* 55-72.

Mayhew, M. J. (2013). Achievement or arrest? The influence of the collegiate religious and spiritual climate on students' worldview commitment. *Research in Higher Education*, 54(1), 63-84.

McFadden, S. H. (2005). Points of connection: Gerontology and the psychology of religion. . *Handbook of the psychology of religion and spirituality.*, 162-176.

Mercadante, L. A. (2014). *Belief without borders: Inside the minds of the spiritual but not religious.* Oxford University Press.

Miyatake, S. &. (2017). Does religious priming increase the prosocial behaviour of a Japanese sample in an anonymous economic game?. *Asian Journal of Social Psychology, 21(1),* 54-59.

Morjaria, A. &. (2002). The role of religion and spirituality in recovery from drink problems: a qualititative study of Alcoholics Anonymous members and South Asian men. *Addiction Research & Theory*, 10(3), 225-256.

Musick, M. A. (2007). *Volunteers: A social profile.* Indiana University Press.

Neusner, J. &. (2005). *Altruism in world religions.* Georgetown University Press.

Nishi, D. S. (2017). The association of personal importance of religion and religious service attendance with suicidal ideation by age group in the National Survey on Drug Use and Health. *Psychiatry research*, 255, 321-327.

Pandya, S. P. (2017). Effect of a spiritual education programme in developing altruism and prosocial behaviour among children. . *International Journal of Children's Spirituality, 22(3-4),* 220-238.

Pargament. (2001). *The psychology of religion and coping: Theory, research, practice.* Guilford Press.

Pargament, K. L. (1995). Merely a defense? The variety of religious means and ends. *Journal of social issues*, 51(2), 13-32.

Park, C. L.-S. (2013). *Why religion? Meaning as motivation.*

Park, J. R. (2011). Religiosity, social support, and life satisfaction among elderly Korean immigrants. *Gerontologist, 52(5),* 641-649.

Patel, S. S. (2002). Psychosocial variables, quality of life, and religious beliefs in ESRD patients treated with hemodialysis. *American Journal of Kidney Diseases, 40(5),* 1013-1022.

Perrone, K. M. (2006). Relationship of spirituality to work and family roles and life satisfaction among gifted adults. *Journal of Mental Health Counselling, 28(3),* 253-268.

Pichon, I. B. (2007). Nonconscious influences of religion on prosociality: A priming study. *European Journal of Social Psychology, 37(5),* 1032-1045.

Price, M. &. (2018). Increased wellbeing from social interaction in a secular congregation.

Reimer, S. (2010). Higher education and theological liberalism: Revisiting the old issue. *Sociology of Religion, 71(4),* 393-408.

Roberts, J. A. (1997). Factors influencing views of patients with gynecologic cancer about end-of-life decisions. *American Journal of Obstetrics and Gynecology*, 176(1), 166-172.

Roes, F. L. (2003). Belief in moralizing gods. *Evolution and human behavior, 24(2),* 126-135.

Rossano, M. J. (2007). Supernaturalizing social life. *Human Nature,* 272-294.

Saroglou, V. (2006). Religion's role in prosocial behvior: Myth or reality. *Religion, 31(2),* 1-66.

Schuurmans-Stekhoven, J. B. (2011). Is it God or just the data that moves in mysterious ways? How well-being research may be mistaking faith for virtue. *Social Indicators Research, 100(2),* 313-330.

Schuurmans-Stekhoven, J. B. (2013). As a Shepherd Divideth his Sheep from the Goats": Does the Daily Spiritual Experiences Scale Encapsulate Separable Theistic and Civility Components? *Social Indicators Research, 110(1),* 131-146.

Singh, A. K. (2010). Spiritual intelligence, altruism, school environment and academic achievement as predictor of mental health of adolescents. *Journal of Exercise Science and Physiotherapy*, 6(1), 34.

Smith, D. P. (2004). Religious and Spiritual Experience Among Psychotherapists. *Psychotherapy: Theory, Research, Practice, Training,*, 144. Retrieved from Psychotherapy: Theory, Research, Practice, Training, 41(2), 144

Steinhauser, K. E. (2000). Factors considered important at the end of life by patients, family, physicians, and other care providers. *Jama*, 284(19), 2476-2482.

Suldo, S. M. (2004). Does life satisfaction moderate the effects of stressful life events on psychopathological behavior during adolescence? *School Psychology Quarterly*, 19(2), 93.

Taghiabadi, M. K. (2017). The association between death anxiety with spiritual experiences and life satisfaction in elderly people. *Electronic physician*, 9(3), 3980.

Taylor, P. &. (2010). *Millennials: A portrait of generation next.* Pew Internet and American life project.

Tse, S. L. (2005). Explorations of Australian and New Zealand indigenous people's spirituality and mental health. *Australian Occupational Therapy Journal*, 52(3), 181-187.

Uecker, J. E. (2007). Losing my religion: The social sources of religious decline in early adulthood. *Social Forces, 85(4),* 1667-1692.

Underwood, L. G. (2002). The daily spiritual experience scale: Development, theoretical description, reliability, exploratory factor analysis, and preliminary construct validity using health-related data. *Annals of Behavioral Medicine, 24(1),* 22-33.

Vinothkumar, M. (2015). Adolescence psychological well-being in relation to spirituality and pro-social behaviour. *Indian Journal of Positive Psychology, 6(4),* 361-366.

Walsh, K. K. (2002). Spiritual beliefs may affect outcome of bereavement: prospective study. *Bmj.,* 324(7353), 1551.

Wilkinson, P. J. (2010). Strong beliefs and coping in old age: A case-based comparison of atheism and religious faith. *Ageing & Society, 30(2),* 337-361.

Wink, P. &. (2003). Religiousness, spirituality, and psychosocial functioning in late adulthood: Findings from a longitudinal study. *Psychology and aging, 18(4),* 916.

Yates, J. W. (1981). Religion in patients with advanced cancer. *Medical and Pediatric Oncology*, 9(2), 121-128.

Zemore, S. E. (2004). In 12-step groups, helping helps the helper. *Addiction, 99(8),* 1015-1023.

Zullig, K. J. (2006). The association between perceived spirituality, religiosity, and life satisfaction: The mediating role of self-rated health. *Social Indicators Research*, 79(2), 255.

Appendices

Appendix A: Informed Consent Sheet

My name is Ryan and I am conducting research in the Department of Psychology that explores spiritual beliefs. This research is being conducted as part of my studies and will be submitted for examination.

You are invited to take part in this study and participation involves completing and returning the attached anonymous survey. While the survey asks some questions that might cause some minor negative feelings, it has been used widely in research. If any of the questions do raise difficult feelings for you, contact information for support services is included on the final page.

Participation is completely voluntary and so you are not obliged to take part.

Participation is anonymous and confidential. Thus, responses cannot be attributed to any one participant. For this reason, it will not be possible to withdraw from participation after the questionnaire has been collected.

The questionnaires will be securely stored and data from the questionnaires will be transferred from the paper record to electronic format and stored on a password-protected computer.

It is important that you understand that by completing and submitting the questionnaire that you are consenting to participate in the study.

Should you require any further information about the research, please contact

Ryan Mc Dermott, █████████@mydbs.ie. My supervisor can be contacted at
█████████@dbs.ie

Thank you for taking the time to complete this survey.

Appendix B: Demographic Questions

1.   How old are you?

☐ Under 18 / ☐ 18 – 34 / ☐ 35 – 49 / ☐ 50 – 64 / ☐ 65 – 79 / ☐ 80+

2.   What gender do you identify with?

☐ Male / ☐ Female / ☐ Other

3.   What is the highest level of education you have completed?

☐ Some secondary school / ☐ Leaving certificate / ☐ Undergraduate degree / ☐ Postgraduate degree / ☐ PhD

Appendix C: Questionnaire 1 – Prosocial Scale for Adults

Please read carefully each phrase and mark the answer that reflects your first reaction.

1.   I am pleased to help my friends/colleagues in their activities.

☐ Never/Almost Never True / ☐ Occasionally True / ☐ Sometimes True / ☐ Often True / ☐ Almost Always/Always True

2.   I share the things that I have with my friends.

☐ Never/Almost Never True / ☐ Occasionally True / ☐ Sometimes True / ☐ Often True / ☐ Almost Always/Always True

3.   I try to help others.

☐ Never/Almost Never True / ☐ Occasionally True / ☐ Sometimes True / ☐ Often True / ☐ Almost Always/Always True

4.   I am available for volunteer activities to help those who are in need.

☐ Never/Almost Never True / ☐ Occasionally True / ☐ Sometimes True / ☐ Often True / ☐ Almost Always/Always True

5.   I am emphatic with those who are in need.

☐ Never/Almost Never True / ☐ Occasionally True / ☐ Sometimes True / ☐ Often True / ☐ Almost Always/Always True

6.   I help immediately those who are in need.

☐ Never/Almost Never True / ☐ Occasionally True / ☐ Sometimes True / ☐ Often True / ☐ Almost Always/Always True

7.   I do what I can to help others avoid getting into trouble.

☐ Never/Almost Never True / ☐ Occasionally True / ☐ Sometimes True / ☐ Often True / ☐ Almost Always/Always True

8.   I intensely feel what others feel.

☐ Never/Almost Never True / ☐ Occasionally True / ☐ Sometimes True / ☐ Often True / ☐ Almost Always/Always True

9.   I am willing to make my knowledge and abilities available to others.

☐ Never/Almost Never True / ☐ Occasionally True / ☐ Sometimes True / ☐ Often True / ☐ Almost Always/Always True

10.   I try to console those who are in need.

☐ Never/Almost Never True / ☐ Occasionally True / ☐ Sometimes True / ☐ Often True / ☐ Almost Always/Always True

11.   I easily lend money or other things.

☐ Never/Almost Never True / ☐ Occasionally True / ☐ Sometimes True / ☐ Often True / ☐ Almost Always/Always True

12.   I easily put myself in the shoes of those who are in discomfort.

☐ Never/Almost Never True / ☐ Occasionally True / ☐ Sometimes True / ☐ Often True / ☐ Almost Always/Always True

13.   I try to be close to and take care of those who are in need.

☐ Never/Almost Never True / ☐ Occasionally True / ☐ Sometimes True / ☐ Often True / ☐ Almost Always/Always True

14.   I easily share with my friends any good opportunities that come to me.

☐ Never/Almost Never True / ☐ Occasionally True / ☐ Sometimes True / ☐ Often True / ☐ Almost Always/Always True

15.   I spend time with those friends who feel lonely.

☐ Never/Almost Never True / ☐ Occasionally True / ☐ Sometimes True / ☐ Often True / ☐ Almost Always/Always True

16.   I immediately sense my friends' discomfort even when it is not directly communicated to me.

☐ Never/Almost Never True / ☐ Occasionally True / ☐ Sometimes True / ☐ Often True / ☐ Almost Always/Always True

Appendix D: Questionnaire 2 – Satisfaction with Life Scale

Below are five statements that you may agree or disagree with. Using the 1 -
7 scale below, indicate your agreement with each item by placing the appropriate number
on the line preceding that item. Please be open and honest in your responding.

1.　　In most ways, my life is close to my ideal.

☐ Strongly Disagree / ☐ Disagree / ☐ Slightly Disagree / Neither Agree nor Disagree / ☐
Slightly Agree / ☐ Agree / ☐ Strongly Agree

2.　　The conditions of my life are excellent.

☐ Strongly Disagree / ☐ Disagree / ☐ Slightly Disagree / Neither Agree nor Disagree / ☐
Slightly Agree / ☐ Agree / ☐ Strongly Agree

3.　　I am satisfied with my life.

☐ Strongly Disagree / ☐ Disagree / ☐ Slightly Disagree / Neither Agree nor Disagree / ☐
Slightly Agree / ☐ Agree / ☐ Strongly Agree

4.　　So far, I have gotten the important things that I want in life.

☐ Strongly Disagree / ☐ Disagree / ☐ Slightly Disagree / Neither Agree nor Disagree / ☐
Slightly Agree / ☐ Agree / ☐ Strongly Agree

5.　　If I could live my life over, I would change almost nothing.

☐ Strongly Disagree / ☐ Disagree / ☐ Slightly Disagree / Neither Agree nor Disagree / ☐
Slightly Agree / ☐ Agree / ☐ Strongly Agree

Appendix E: Questionnaire 3 – The Beliefs and Values Scale

Please state the degree to which you agree with the below statements

1.   I am a spiritual person.

☐ Strongly Agree / ☐ Agree / ☐ Slightly Agree / ☐ Neither Agree nor Disagree / ☐ Disagree / ☐ Slightly Disagree / ☐ Strongly Disagree

2.   I believe I have a spirit or soul that can survive my death.

☐ Strongly Agree / ☐ Agree / ☐ Slightly Agree / ☐ Neither Agree nor Disagree / ☐ Disagree / ☐ Slightly Disagree / ☐ Strongly Disagree

3.   I believe in a personal god.

☐ Strongly Agree / ☐ Agree / ☐ Slightly Agree / ☐ Neither Agree nor Disagree / ☐ Disagree / ☐ Slightly Disagree / ☐ Strongly Disagree

4.   I believe meditation has value.

☐ Strongly Agree / ☐ Agree / ☐ Slightly Agree / ☐ Neither Agree nor Disagree / ☐ Disagree / ☐ Slightly Disagree / ☐ Strongly Disagree

5.   I believe God is an all-pervading presence.

☐ Strongly Agree / ☐ Agree / ☐ Slightly Agree / ☐ Neither Agree nor Disagree / ☐ Disagree / ☐ Slightly Disagree / ☐ Strongly Disagree

6.   I believe what happens after I die is determined by how I have lived my life.

☐ Strongly Agree / ☐ Agree / ☐ Slightly Agree / ☐ Neither Agree nor Disagree / ☐ Disagree / ☐ Slightly Disagree / ☐ Strongly Disagree

7.   I believe there are forces of evil in the universe.

☐ Strongly Agree / ☐ Agree / ☐ Slightly Agree / ☐ Neither Agree nor Disagree / ☐ Disagree / ☐ Slightly Disagree / ☐ Strongly Disagree

8. Although I cannot understand, I believe everything happens for a reason.

☐ Strongly Agree / ☐ Agree / ☐ Slightly Agree / ☐ Neither Agree nor Disagree / ☐ Disagree / ☐ Slightly Disagree / ☐ Strongly Disagree

9. I believe human physical contact can be a spiritual experience.

☐ Strongly Agree / ☐ Agree / ☐ Slightly Agree / ☐ Neither Agree nor Disagree / ☐ Disagree / ☐ Slightly Disagree / ☐ Strongly Disagree

10. I feel most at one with the world when surrounded by nature.

☐ Strongly Agree / ☐ Agree / ☐ Slightly Agree / ☐ Neither Agree nor Disagree / ☐ Disagree / ☐ Slightly Disagree / ☐ Strongly Disagree

11. I believe in life after death.

☐ Strongly Agree / ☐ Agree / ☐ Slightly Agree / ☐ Neither Agree nor Disagree / ☐ Disagree / ☐ Slightly Disagree / ☐ Strongly Disagree

12. I am a religious person.

☐ Strongly Agree / ☐ Agree / ☐ Slightly Agree / ☐ Neither Agree nor Disagree / ☐ Disagree / ☐ Slightly Disagree / ☐ Strongly Disagree

13. Religious ceremonies are important to me.

☐ Strongly Agree / ☐ Agree / ☐ Slightly Agree / ☐ Neither Agree nor Disagree / ☐ Disagree / ☐ Slightly Disagree / ☐ Strongly Disagree

14. I believe life is planned out for me.

☐ Strongly Agree / ☐ Agree / ☐ Slightly Agree / ☐ Neither Agree nor Disagree / ☐ Disagree / ☐ Slightly Disagree / ☐ Strongly Disagree

15. I believe God is a life force.

☐ Strongly Agree / ☐ Agree / ☐ Slightly Agree / ☐ Neither Agree nor Disagree / ☐ Disagree / ☐ Slightly Disagree / ☐ Strongly Disagree

16.   At least once in my life, I have had an intense spiritual experience.

☐ Strongly Agree / ☐ Agree / ☐ Slightly Agree / ☐ Neither Agree nor Disagree / ☐ Disagree / ☐ Slightly Disagree / ☐ Strongly Disagree

17.   I believe that there is a heaven.

☐ Strongly Agree / ☐ Agree / ☐ Slightly Agree / ☐ Neither Agree nor Disagree / ☐ Disagree / ☐ Slightly Disagree / ☐ Strongly Disagree

18.   I believe that the human spirit is immortal.

☐ Strongly Agree / ☐ Agree / ☐ Slightly Agree / ☐ Neither Agree nor Disagree / ☐ Disagree / ☐ Slightly Disagree / ☐ Strongly Disagree

19.   I believe prayer has value.

☐ Strongly Agree / ☐ Agree / ☐ Slightly Agree / ☐ Neither Agree nor Disagree / ☐ Disagree / ☐ Slightly Disagree / ☐ Strongly Disagree

Appendix F: Debrief Sheet

Thank you for your participation in this study.

The aim of this research is to effectively assess whether differing spiritual beliefs among individuals impact perceived life satisfaction and level of prosocial behaviour. The investigation also aims to uncover whether there are differences between those variables according to participants' level of education and age group. Previous research has been largely inconclusive on the topic, therefore it will be useful to gather data from a general Irish sample.

If you experience any negative emotional effects before, during or after this study, some contact details of relevant helpful organisations are listed below.

www.aware.ie

www.samaritans.org

www.nutritionandhealth.ie

If you have any further questions, please don't hesitate to contact me directly by email ▮▮▮▮▮▮@mydbs.ie