

The Catholic Marian Spirituality Scale: Conceptualization and Measurement

Submitted by

John Vayalilkarottu OFMConv.

B.A., B.Ph., MSc.

A thesis submitted in total fulfilment of the degree of  
Master of Philosophy (MPhil)  
(Psychology of Religion and Spirituality)

School of Psychology  
Faculty of Health Sciences

Australian Catholic University

18.05.2016

**Table of Contents**

Table of Contents..... ii

List of Tables ..... v

List of Figure..... v

Abstract..... vi

Declaration..... vii

Acknowledgements..... viii

Dedication ..... ix

CHAPTER ONE: PSYCHOLOGY, RELIGION AND SPIRITUALITY..... 1

    1.1 Introduction..... 1

    1.2 Aims of the Current Study ..... 5

    1.3 Statement of the Problem..... 5

    1.4 Significance of the Study ..... 8

CHAPTER TWO: LITERATURE REVIEW ..... 9

    2.1 A General Overview of Religion and Spirituality..... 9

    2.2 Different Types of Spirituality ..... 12

        2.2.1 Secular Spirituality..... 12

        2.2.2 Workplace Spirituality ..... 14

        2.2.3 Hindu Spirituality..... 15

        2.2.4 Buddhist Spirituality ..... 18

        2.2.5 Islamic Spirituality..... 20

        2.2.6 Christian Spirituality ..... 21

    2.3 Uniqueness of Marian Spirituality ..... 24

    2.4 Catholic Marian Spirituality: Conceptual Clarification ..... 26

    2.5 Measurement of Spiritual Well-Being ..... 28

    2.6 Measurement of Spirituality/Religion..... 28

## THE CATHOLIC MARIAN SPIRITUALITY (CMS) SCALE

2.7 Scales used to Measure Religiousness and Spirituality .....	29
2.7.1 Daily Spiritual Experience Scale (DSES) .....	29
2.7.2 The Mental, Physical and Spiritual Well-being (MPS) Scale .....	30
2.7.3 The Openness to Spiritual Beliefs and Experiences Scale (OSBES) .....	30
2.7.4 The Mysticism Scale (MS) .....	31
2.7.5 The Santa Clara Strength of Religious Faith Questionnaire (SCSORF) .....	31
2.8 Conclusion .....	32
CHAPTER THREE: RESEARCH METHODOLOGY .....	33
3.1 Introduction .....	33
3.2 Pilot Study .....	33
3.2.1 Participants for the Pilot Study .....	34
3.2.2 Pilot Study Demographics .....	34
3.3 Procedures .....	35
3.3.1 Expert Review .....	35
3.3.2 Semi-structured Interview: Review of the CMS Scale by Catholic Lay people (non-experts) .....	36
3.4 Inclusion and Exclusion Criteria as a Result of the Pilot Study .....	37
3.5 Refining of the Survey Questionnaire for the Main Study .....	38
3.6 Main Study .....	41
3.6.1 Participants for the Main Study .....	41
3.6.2 Materials: Questionnaire .....	41
3.6.3 Response Rate .....	41
3.7 Demographic Characteristics .....	42
3.8 Research Instruments and Data Collection Procedures .....	45
3.9 Procedures for the Main Study .....	46
3.10 Development of the CMS Scale .....	46
3.10.1 Validity .....	46

## THE CATHOLIC MARIAN SPIRITUALITY (CMS) SCALE

3.10.2 Factor Analysis .....	48
3.10.3 Reliability.....	49
3.11 Ethical Considerations .....	50
3.12 Conclusion .....	50
CHAPTER FOUR: RESULTS .....	52
4.1 Introduction.....	52
4.2 Reliability Analysis.....	52
4.3 Correlation Analysis .....	56
4.4 Confirmatory Factor Analysis for Construct validity .....	57
CHAPTER FIVE: DISCUSSION AND CONCLUSION.....	60
5.1 Conceptual Clarification and Content Validity.....	60
5.2 Refining of the items using Exploratory Factor Analysis (EFA) and Confirmatory Factor Analysis (CFA).....	62
5.3 Establishing Reliability of the CMS Scale.....	67
5.4 Limitations and Recommendations.....	69
5.5 Conclusion .....	72
References .....	75
Appendix 1: Participant Information Letter, Interviewees for Pilot Study .....	100
Appendix 2: Review Form for CMS Experts .....	104
Appendix 3: Review Form for Experts in Scale Development.....	109
Appendix 4: Review Responses from Experts.....	118
Appendix 5: Participant Information Letter, Pilot Study Survey participants.....	123
Appendix 6: Interviews for the Pilot Study .....	127
Appendix 7: Pilot Study Questionnaire .....	136
Appendix 8: Participant Information Letter: Main Study Participants .....	144
Appendix 9: Main Study Questionnaire .....	147
Appendix 10: Pilot Study analysis- SPSS Output .....	152

## THE CATHOLIC MARIAN SPIRITUALITY (CMS) SCALE

Appendix 11: Main Study analysis SPSS output .....	160
Appendix 12: Correlation analysis and Descriptive analysis for the Main Study.....	174
Appendix 13: Ethics Approval for the Main Study.....	176
Appendix 14: Ethics Approval for the Pilot Study .....	178

### List of Tables

Table 1 <i>Reliability Analysis of factors (N=140)</i> .....	39
Table 2 <i>Frequency and Percentage value for Gender</i> .....	42
Table 3 <i>Frequency and Percentage value for Age group</i> .....	42
Table 4 <i>Frequency and Percentage value for Marital status</i> .....	43
Table 5 <i>Frequency and Percentage values for Ethnic background</i> .....	43
Table 6 <i>Frequency and Percentage value for level of Education</i> .....	44
Table 7 <i>Frequency and Percentage value for Occupation</i> .....	45
Table 8 <i>Reliability Analysis of the factors (N=853)</i> .....	52
Table 9 <i>CMS Scale Items</i> .....	54
Table 9.1 <i>Summary Statistics for the CMS Scale: Item Means, Standard Deviations, Scale Alphas and Intra-class Reliability</i> .....	55
Table 10 <i>Correlation, means and standard deviations of all variables</i> .....	56
Table 11 <i>Results of the confirmatory factor analysis of the CMS Scale</i> .....	58

### List of Figure

Figure 1: Research Framework adopted for the study.....	40
---	----

**Abstract**

The specific context of the current research is Catholic Marian Spirituality (CMS), which embodies a set of beliefs and practices intended to make its adherents closely connected to Jesus Christ by imitating the virtues of the Blessed Virgin Mary.

This research project aimed to conceptualize and to develop a measurement of CMS. It also aimed to establish content validity through expert review and the refining of the items based on Exploratory Factor Analysis (EFA) and Confirmatory Factor Analysis (CFA), and to establish internal reliability of the CMS Scale using reliability analysis.

The study adopted both qualitative and quantitative methods to develop the questionnaire. The questionnaire was tested for content, construct and face validity through interview and pilot study. Six experts in the field of different dimensions of the CMS and scale development were requested to review the draft questionnaire for content validity of the research construct. The scale developed in the pilot study was tested among selected participants. The initial scale consisted of 44 items developed from Marian Spirituality literature and the feedback from both experts and eight non-experts (Catholic lay people among whom the survey was conducted). One hundred and forty Catholics were recruited to complete the 44 item CMS Questionnaire for the pilot study.

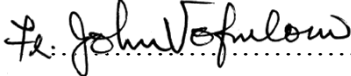
The samples for the pilot and main study were separately recruited. The main study was conducted on a convenience sample of 853 Church-attending Catholic lay people over the age of eighteen. Overall, the study reported strong reliability with coefficient alphas ranging from .79 to .95. Thus, the present study has sought to identify and explore the underlying factors in Catholic Marian Spirituality and to develop a measurement for the same.

**Declaration**

This thesis is submitted in total fulfillment of the Degree of Master of Philosophy (MPhil) in Psychology of Religion and Spirituality at the Australian Catholic University, Melbourne, under the supervision of Associate Professor Cecelia Winkelman, Dr. Lisa Milne, Dr. Eric Stephen Marx, and Associate Professor Sabine Hammond.

This thesis contains no material published elsewhere or extracted in whole or in part from a thesis by which I have qualified for or been awarded another degree or diploma. No parts of this thesis have been submitted towards the awards of any other degree or diploma in any other tertiary institution. No other person's work has been used without due acknowledgement in the main text of the thesis.

All research procedures reported in this thesis received the approval of the relevant Ethics Committee.

Signed  .....

Date 18<sup>th</sup> May 2016

### **Acknowledgements**

I wish to express my deep gratitude to all through whom God's generosity and goodness came to me through the powerful intercession of the Immaculate Mother, Mary. I wish to thank all the Superiors and Friars of the Conventual Franciscans in Australia and India; in particular I wish to mention Fr. Emmanuel Gatt and Fr. Mathew Purayidom for giving me their permission for the study. I also express my gratitude to the current Major Superiors, Fr. Michael Zielke, Fr. Leo Payyappilly and Br. Joseph Wood for their encouragement and assistance.

I am very grateful to Fr. Benedict La Volpe, Parish Priest and Guardian, with whom I live and work, for all his kind assistance and guidance. I am very grateful also to Fr. Adrian Robson, my former Guardian for his support.

I am deeply indebted to Associate Professor Cecelia Winkelman, my Principal Supervisor, for her diligent, dedicated and timely guidance. I wish to express my deep gratitude also to my former Principal Supervisor, Dr. Eric Stephen Marx, and to Dr. Lisa Milne and Associate Professor Sabine Hammond for their guidance.

I wish to gratefully acknowledge the editorial assistance and advice I received from Dr. Bernadette Scott, Ms Tina Giacco and Dr. Anton Issacs. I am very grateful to Professor Russell D'Souza, Ms Aylin Sinsek and Rosanna Witshire for their kind assistance in many ways.

I wish to recognize the expert advice and direction I received from Dr. Sivadasan Vaidyalingam for data analysis, especially for Reliability Analysis, Exploratory Factor Analysis and Confirmatory Factor Analysis. I am also obliged to the kind assistance of Steven and Subi Steve Manoharan, Vinod Kuttikkattu and Heins and Remia Vallonthaiel for their assistance with computer formatting.

I am very thankful also to all the ACU staff and in particular I wish to thank Ms Kathryn Duncan, Librarian and Ms Katia Salem, Student Consultant, for their timely assistance.

I am also grateful to all who helped me with data collection and feedback. In all my difficulties I turn to God in prayer in communion with my brothers and sisters in Christ. I am deeply obliged to all who pray for the success of this study so that it may be done for the glory of God and the honour of the Blessed Virgin Mary.



THE CATHOLIC MARIAN SPIRITUALITY (CMS) SCALE

**Dedication**

To the glory and honour of the Immaculate Heart of the Blessed Virgin Mary!

## CHAPTER ONE: PSYCHOLOGY, RELIGION AND SPIRITUALITY

### 1.1 Introduction

Kaldor, Hughes and Black (2010) have found that whilst 57% of Australians are not greatly involved in either religion or spirituality, there is evidence that the effect of religion/spirituality in society is still impacting on many aspects of life. Hughes, Reid, and Pickering (2010) and Dixon (2005) showed that despite the changing circumstances in marriage and family, upbringing of children, economy and media, Christian Churches in Australia, in general, and Catholic Christians in particular, provide significant service - especially in the areas of education, family, healthcare, youth, the elderly and workplace ministries. Spirituality and religion are important facets of human existence and play a significant role in human development and well-being (Spilka, Hood, Hunsberger, & Gorsuch, 2003). Despite the general skepticism that exists regarding the study of the spiritual nature of humans (Koenig, McCullough, & Larson, 2001), a number of eminent psychologists have included the spiritual and religious nature of human kind as part of their theories of human behavior. In the past, prominent psychologists, such as William James, C.G. Jung, Eric Fromm, G.W. Allport, Abraham Maslow and Victor Frankl, have suggested that religion/spirituality must be taken into account when aiming to understand the human person as a whole (Hill et al., 2000). Currently, many experts in the field of health sciences such as Kenneth Pargament, Harold Koenig, Russell D'Souza, Raymond Paloutzian, George Vaillant and Crystal Park view humankind as having an obvious spiritual dimension. They show interest in the association between psychology, religion, health and well-being (D'Souza, 2007; Hill, 2005; Koenig, King, & Carson, 2012; Pargament, Mahoney, Exline, Jones, & Shafranske, 2013; Vaillant, 2008).

## THE CATHOLIC MARIAN SPIRITUALITY (CMS) SCALE

It is generally accepted by many health scientists that humans are multidimensional beings: physical, mental, social, economic, spiritual and religious. In the field of psychology of religion a human person is defined as a “religious animal” (Spilka, et al., 2003, p.54). Based on archeological findings, anthropologists have established that, from the pre-historic period to the present day, human beings performed rituals of religious significance (Renfrew & Morley, 2009). Neurobiological studies suggest that spirituality is a vital aspect of human nature (Newberg & Waldman, 2007). The spiritual nature of humans resides in the uniquely human brain design. It is expressed through the innate capacity for positive emotions such as faith, hope, love, joy, forgiveness, and compassion. Spirituality is the consequence of a positive force in human evolution, and it deserves to be considered as a significant human striving (Vaillant, 2008).

James (1958) reached the conclusion that the ultimate goal of human existence is to be united with the spiritual universe. The inseparable unity between body, mind and soul, in conjunction with the fundamental nature of the human soul were of great interest for many of the researchers. Frankl (1986) proposed that the spiritual dimension was the core dimension of human beings. In his scheme of motivational hierarchy, Abraham Maslow maintained that, in addition to basic survival needs, human beings also have needs in ascending order for self-actualization and self-transcendence (Koltko-Rivera, 2006; Maslow, 1971). Describing the various meanings of transcendence, Maslow proposed that humans have the potential to become divine or godlike (Maslow, 1971).

Allport (1950) postulated that religion was acquired and not inherited. According to him, culture and environment influence religious orientation. During their developmental stages, children gradually pass from an egocentric to an unselfish notion of religion, which eventually becomes an integral part of their personality. Fowler (1995) sees faith as the deep

## THE CATHOLIC MARIAN SPIRITUALITY (CMS) SCALE

core and the centre of values of the individual that involve both conscious and unconscious inspirations. Humanity's views on family, sexuality, money, power, religion, etc., are impacted upon by their faith.

Fowler (1995) postulated that humans necessarily pass through different stages of faith based on their experience beginning with trust or distrust in their childhood. According to him the highest stage of faith is the stage of enlightenment in which humans treat one another with love and compassion. Fowler's model has been influential in pastoral counselling, pastoral theology, spiritual direction and Christian education. However, his theory has been criticized for reasons such as its over-emphasis on cognition and consequent lack of attention to psychological dimensions as processes of transformation. It has also been criticised for its gender bias and the cultural specificity (Leak, DeNeve, & Greteman, 2007).

Newberg, D'Aquili and Rause (2001) argue that an innate and fundamental need in humans to connect with something larger is because spirituality and religion are hard wired into the human brain. In fact the religious impulse is rooted in the biology of the brain. There exists a complex relationship between spirituality and the brain that can be empirically measured. Neurological studies conducted on Franciscan nuns and Buddhist monks reveal that there is a positive link between "brain activity and many 'every day' religious and spiritual issues: the importance of community and family; ethics and morals; love, compassion and forgiveness" (Newberg et al., 2001, p.175).

Newberg and Waldman (2007) propose that humans are born to believe. Using data from the neurobiological research of brain scans they show that many spiritual or religious activities, like prayer, meditation, and speaking in tongues, are related to the function of human brains. Complex concepts related to meaning, value and spirituality are caused by the

## THE CATHOLIC MARIAN SPIRITUALITY (CMS) SCALE

neural activities of the brain. In contrast, Dawkins (2006) holds the view that religion is the root cause of evil in the world. He dismisses the supernatural realms as well as all propositions in favour of God, faith and religion, suggesting that they are not sufficiently evidence based and, therefore, not convincing.

Zohar and Marshall (2000) suggested that in the depth of every human being, there is the craving for the realization of values that transcend space and time, values which provide meaning, purpose, peace, and joy in life. This deep craving of humans' inner beings for transcendence, wholeness and a relationship with someone higher than oneself is innate in human nature. It points to the longing of the human heart for intimacy with the transcendence. Happiness/well-being scientists term this desire for wholeness and lasting joy as spiritual intelligence (Vaillant, 2008; Zohar & Marshall, 2000).

Spiritual intelligence (SQ) is a significant and neglected part of human well-being (Noble, 2001; Sisk & Torrance, 2001; Zohar & Marshall, 2000). It is considered as the ultimate intelligence in humans because SQ assists in solving problems related to meaning, value, and morality. It helps them to discover answers for the most fundamental questions concerning the purpose of human existence: Where do humans come from? What happens after their death? Hence, it is fundamental to human development and well-being (Zohar & Marshall, 2000). According to Emmons (1999) SQ includes our capacity to surpass material and physical realms and to harness spiritual resources to resolve difficulties.

Notwithstanding criticisms, literature on psychology of religion and spirituality reveals that the spiritual/religious dimension of the human person is pertinent for holistic well-being. Spirituality/religion cannot be ignored in the pursuit of wholeness and well-being.

## **1.2 Aims of the Current Study**

The specific objective of this study is the conceptualization and measurement of Catholic Marian Spirituality. This research project aims: 1) to provide conceptual clarification of Catholic Marian Spirituality (CMS) and to establish content validity through expert review; 2) to refine the items based on Exploratory Factor Analysis (EFA) and Confirmatory Factor Analysis (CFA); and 3) to establish internal reliability of the CMS Scale using reliability analysis.

Both the literature as well as experts on CMS suggested that its core components are: the Liturgical, Biblical, Christocentric and Ecclesial aspects. These four core components of CMS were examined in this study. Both faith and practice, that is, knowledge and its application in real-life situations were taken into account when generating the items in the questionnaire to develop an instrument to measure CMS.

## **1.3 Statement of the Problem**

A study conducted among Catholic lay people (Bernardi et al., 2001) has established that the recitation of the “Ave Maria” (the “Hail Mary” - a popular prayer asking for the intercession of the Blessed Virgin Mary) causes improvements in factors associated with psychophysical well-being. Additionally, medical studies have concluded that reciting the Rosary could be viewed “both as a health practice as well as a religious practice” (Bernardi et al., 2001, p.1449). Hermkens (2007) showed that devotion to Mary helped the Catholic women in Papua New Guinea to overcome their situation of being faced with gender based violence. An in-depth anthropological study conducted by Derks (2009) at a Bolivian pilgrim site revealed that their Marian devotion empowered the pilgrims in their quest for equality, inner transformation and economic betterment.

## THE CATHOLIC MARIAN SPIRITUALITY (CMS) SCALE

The findings of a 2009 survey of 2,482 Catholic priests from twenty-three dioceses around the U.S. revealed that the Catholic practice of Marian devotion is connected to a priest's relationship to God and well-being. As a priest's Marian devotion increases, so too does his relationship to God and hence his quality of life and happiness (Rossetti, 2011). In a longitudinal study of 678 Catholic nuns from 75 to 107 years of age, Snowdon (2002) showed how their commitment to God and to works of charity enabled them to age gracefully and to reduce cognitive disabilities of old age. These nuns expressed their deep commitment to God through prayer, which also included daily recitation of the Rosary, an element of CMS.

In testing the hypothesis that women's spirituality can be a predictor of well-being, Skrzypińska and Chudzik (2012) compared the spirituality and well-being of 211 Catholic laywomen and nuns. Their study revealed that nuns registered higher levels of spirituality, well-being and positive emotions than Catholic laywomen. The fervent devotion of Polish nuns to the Blessed Mother of God may have helped them to control their negative emotions, thus, enhancing their positive emotions and their general well-being.

In terms of CMS contributing to health and well-being, there have been some studies that show benefit. However, in the studies of Skrzypińska and Chudzik (2012) and Rossetti (2011) only one aspect of Marian devotion, namely, praying the Rosary of the Blessed Virgin was considered. In the case of Snowdon (2002), he made a generalised study on a specific population, namely, Catholic nuns. These studies are helpful but limited.

The development and use of scales is ubiquitous in public health research (Koenig, 2011). The development of an accurate measurement to assess spirituality and religion is fundamental to the field of psychology of religion and spirituality. It helps to establish the

## THE CATHOLIC MARIAN SPIRITUALITY (CMS) SCALE

credibility of the field amongst other social sciences (Hill, 2005). Gorsuch and Miller (1999) emphasized a caution to avoid “creating more homemade scales when there are already psychometrically sound options” (p. 59). Gorsuch (1990) suggested that the development of a new scale is warranted only when prevailing measures are not psychometrically adequate or conceptual and theoretical issues require these scales to be adjusted. Developing a new scale also needs to include the establishment of clear criteria.

In the psychology of religion and spirituality there are several hundreds of measures of different dimensions of spiritual/ religious experiences (Hill & Wood, 1999; Hill & Pargament, 2003; Hill, 2005; Hood, Hill & Spilka, 2009; Hill & Dwiwardani, 2010; Hill, 2013; and Hill & Edwards, 2013). Many of these studies have looked at the relationship between spirituality/religion and different dimensions of well-being. Paloutzian and Ellison’s (1982) 20-item Spiritual Well-Being Scale (SWBS) measures religious and spiritual well-being. Moberg’s (1984) Spiritual Well-being Questionnaire is designed to quantify three core aspects of well-being, namely, religious well-being, existential well-being, and overall spiritual well-being. An example of a widely-used measure to investigate spirituality is The Santa Clara Strength of Religious Faith Questionnaire (SCSRFQ) was developed by Plante and Boccaccini (1997a, 1997b) to measure this variable among the general population. Since they were designed for measuring other aspects of spirituality, none of these scales have items that represent any of the factors of CMS (see section 2.7 of this thesis).

An online internet search conducted using the databases PsycINFO, Medline , PsycCRITIQUES, PubMed and ScienceDirect showed that, currently, no scale exists to measure CMS. Whilst the scales described in the paragraph above measure diverse aspects of religious and spiritual commitments, none of them measure aspects of CMS. Therefore, the



development of an appropriate measuring instrument for the CMS becomes necessary.

Development of survey questionnaire items comprising the core components of CMS, and the establishment of their reliability and content validation is pertinent for further scientific study in the field of psychology of religion and spirituality.

### **1.4 Significance of the Study**

A CMS Scale may serve as a facilitator of well-being to guide the content of pastoral counseling, in particular, and spiritually integrated psychotherapy, in general. Recent research findings showed that people's world-view impacts on their holistic health and development. In this regard, the CMS Scale can provide a contribution to researchers involved in trying to investigate how religion and spirituality interact with and influence health parameters. The development of a reliable and valid measurement for CMS has benefits for future research. It can be used to examine whether Marian spirituality correlates with subjective well-being, quality of life and different aspects of health and well-being. It can be used to study whether there is an impact of living Marian Spirituality on social commitment or on the stability of family relations. These studies can be done among samples of population who are devoted to Blessed Mary.

## **CHAPTER TWO: LITERATURE REVIEW**

### **2.1 A General Overview of Religion and Spirituality**

The word religion is derived from the Latin word “religio” which signifies “a bond between humanity and greater than human power” (Hill et al., 2000, p. 56). Religion consists of perceptions and moral beliefs shared by a group of people in order to explain the meaning of human existence in this universe. It contributes to the principles, doctrines and values that provide the moral and ethical framework for motivation, understanding and behaviour (King, 2007). The word spirituality, meaning “breathe of life”, is derived from the Latin root “spiritus” (Elkins, 1999). While religion is mostly understood as belief in a supernatural being, there have been many definitions over the last several decades (Zinnbauer & Pargament, 2005). In terms of spirituality, whilst there is no universal definition, (Aten & Leach, 2009), it is usually defined as a person’s existential relationship with God or with the transcendent (Gilbert, 2000; Hodge, 2005). However, there are those that maintain that spirituality and religion are distinct entities that may or may not be related. In this case spirituality can be viewed as an individual’s desire to find meaning in life, whereas religion includes rituals and practices in relation to a higher power (Tanyi, 2002).

In accordance with the view that religion and spirituality can be integrated, some researchers (Hill et al., 2000; Koenig, 2011; Pargament, 1999) see spiritual growth as the real aim of religion. For them spirituality is the outcome of the relationship with the sacred and is connected with existential search. These experiences are obtained in and through religion. Hence, spirituality can be regarded as the experiences connected to religious beliefs and rituals that connect one to the divine and impacts on the life style of its followers. James (1958) suggested that religion includes feelings, deeds, and the experiences of men and

## THE CATHOLIC MARIAN SPIRITUALITY (CMS) SCALE

women, undertaken both in community and in solitude, concerning what they regard as the divine. Paul Johnson (1959) wrote: “It is the ultimate Thou whom the religious person seeks most of all” (p. 70). Jung (1969) said that religion is concerned with humanity’s relationship with transcendent powers. In agreement with these, Pargament (2007) also suggests that the core of religion is God, the divine or transcendent reality.

Yust, Johnson, Sasso and Roehlkepartain (2006) defined spirituality as the intrinsic human capacity for self- transcendence, while Pargament (1997) describes it as a quest for finding significance in life, oneness, and transcendence. Spirituality is a complex and multi-dimensional construct which includes concepts such as meaning, direction, and intimacy with God (Ganje-Fling, Veach, Kuand, & Houg, 2000; Hamilton & Jackson,1998); faith, hope and love (Van Kaam,1983); and belonging, connectedness and openness to the infinite (Shafranske & Gorsuch, 1984). It transcends the material and links one to the whole (Robinson & Watt, 2001). Emblen (1992) defined spirituality as principles in one’s personal life that animate the quality of a transcendent relationship with God. According to Vaughan, Wittine, and Walsh (1996), spirituality is classified as “an individual’s experience which exists outside and within the traditional religious system” (p. 497). Sussman, Nezami, and Mishra (1997) classified it as the “life force of individuals’ experience” (p. 112). Spirituality is related to the existential search for purpose and meaning regarding the complex question about the ultimate end of human existence (Larson, Swyers, & McCullough, 1998; Thoresen, 1999). It may be governed through religious institutions or through personal understanding.

The conceptualization of spirituality is also described as “spiritual transcendence” (Piedmont, 1999, 2001), which might not include sacred or divine power. Many people consider themselves “spiritual but not religious” and regard religion and spirituality as

## THE CATHOLIC MARIAN SPIRITUALITY (CMS) SCALE

opposing constructs (Fuller, 2001). Indeed in the social science literature, spirituality and religion are often conceptualized as separate but interrelated concepts (Canda & Furman, 2010; Derezotes, 2006). Religion is part of spirituality for many individuals but is not the same as spirituality.

Although some researchers may find such contrast between spirituality and religion a practical paradigm, there are drawbacks to the separation of these two constructs (Hill et al., 2000; Pargament, 1999). Wuthnow (1998) suggests that the separation of religion and spirituality into established and personal spheres discounts reality. What is clear is that most systems of spirituality are expressed within communities and, in general, organised religions also focus on ordering the affairs of individuals. Similarly, Pargament et al., (2013) argue that there are advantages and disadvantages associated with aspects of religion and spirituality. Thus the notion that spirituality is good and religion is bad is an overly simplified view. Furthermore, most people do not distinguish the difference between these two concepts (Marler & Hadaway, 2002; Moberg, 2005; Zinnbauer, et al., 1997). The majority of people describe themselves using both terms as well as using them interchangeably (Musick, Traphagan, Koenig, & Larson, 2000).

The central function of both religion and spirituality is “the search for the sacred” (Pargament, 1999, p.12). They can be separate but in most cases are interrelated. Shafranske and Gorsuch (1984) proposed that the transcendent dimension of religion enables individuals to discover the meaning of personal existence and helps them to go beyond the limits of their individual self. For Vaughan (1991) religion is a subjective experience of the sacred.

Religion and spirituality is a well-researched area, however, less emphasis is given to conceptualizing and measuring an integrated aspect of religion and spirituality. Previous

research has not taken into consideration how spirituality and religion are conceptually intertwined and the practice that follows from these beliefs. Though there are many, and even opposing opinions, in terms of defining religion and spirituality, on balance and in this thesis the term spirituality is used in a holistic and integrative sense to signify both these constructs.

### **2.2 Different Types of Spirituality**

People differ in their understanding of meaning, purpose and ultimate values in life and the literature on spirituality and religion reflects this by describing a great variety of religious and spiritual experiences. Walker (2007) provides hundreds of definitions of spirituality both connected to and distinct from religion. In this review only a few of the most commonly discussed types of spirituality are considered. They are: Secular spirituality, Workplace spirituality, Hindu spirituality, Buddhist spirituality, Islamic spirituality and Christian spirituality.

#### **2.2.1 Secular Spirituality**

According to Walach (2014) the followers of secular spirituality believe in and are devoted to the practices of a spiritual system of ideas and ideals without any religious framework. Having no reference to the transcendent divine, God or angel, secular spirituality gives special importance and value to the inner peace of its adherents. Elkins, Hedstrom, Hughes, and Saunders (1988) suggest that secular spirituality is comprised of the exploration of meaning and happiness that come from outside and beyond organized religions such as Hinduism, Judaism, Christianity and Islam. It promotes one's positive relationship with all aspects of life, namely, the self, others, nature, and whatever else one appraises to be the fundamental principle of life.

## THE CATHOLIC MARIAN SPIRITUALITY (CMS) SCALE

Wilkinson (2007) states that the basic aim of secular spirituality is to live a happy life by helping others. It advocates a secular worldview that respects all people in the community without socio-economic and religious distinctions. Although it tries to be secular in its ideals, it also accepts spiritual practices from other religious traditions such as yoga, different forms of meditations and mindfulness to foster the values of forgiveness, empathy and compassion. These spiritual practices of other religious traditions are recommended for personal fulfilment and enhancement of well-being without any otherworldly implications (Van der Veer, 2009). Thus secular spirituality, as its name indicates, is without any religious doctrines or any supernatural dimension.

However Sacks (2011) points out that, since there is no contradiction between science, religion and spirituality, an integrative approach of mutual partnership is more beneficial for collaborative existence. Mercadante (2014) also states that the denial of the supernatural dimension of spirituality is not compatible with the traditional understanding of the concept. The values of compassion, forgiveness and empathy, etc. are emphasized by all the traditional forms of spirituality. The effort to separate religion and spirituality is both arbitrary and artificial, and that this leads to a non-integrated, reductionist and counterproductive stance.

Marshall (2002) observes that after September 11 tragedy, Americans throughout the nation assembled in prayer to express their sorrow and to offer their emotional support and encouragement to all the victims and their families. They affirmed their mutual support mostly by singing religious hymns and praying together. According to him events such as this show the general religious mind set of the people when faced with tragedies in life gathering together to ask God to bless them to overcome sorrows with forgiveness and hope for a better future.

### **2.2.2 Workplace Spirituality**

Workplace Spirituality began in U.S as a movement during the first part of the 20th century in response to those individuals who desired to live their faith or spiritual values in the workplace. Its aim is to integrate personal, professional and spiritual growth. Fry (2005) and Giacalone and Jurkiewicz (2010) concluded that uncontrolled capitalism and entrepreneurship without any spiritual values will lead to financial crisis and recession. They propose social equity in economic and social circumstances and avoiding corruption and other unwanted behaviours in the workplace.

People spend most of their time in their work place. Finding meaning and fulfilment in their work has become a basic need for achieving happiness. From a Catholic Christian perspective, humans created in the image of God, participate in the creative activity of God through work which is necessary for their development and maintenance. Human work has a threefold dimension of one's own development, the progress of the society and to glorify God through one's work. Thus, work enables humans to transform the world and to achieve human fulfilment in accordance with the will of God (Pope Saint John Paul II, 1981). Since humans are spiritual beings, their dignity should always be respected (Pontifical Council for Justice and Peace, 2005). Again, from a Catholic Christian point of view, humans are "the source, the focus and the aim of all economic and social life." (Pope Benedict XVI, 2009, para.25). The right to work or employment is a fundamental right which enables humans to develop their qualities and strengthen them to fulfill all aspects of human existence including the socio-cultural and spiritual dimensions (Pope Paul VI, 1971). The spiritual dimension of humans demand that the work place should be "structured and governed in an ethical manner" (Pope Benedict XVI, 2009, para.36).

Dalai Lama and Victor Chan (2012) and Dalai Lama (1999) proposed that an environment of ethical/ moral behaviour expressed in mutual understanding, compassion and interconnectedness is necessary for human fulfilment. Fernando and Jackson (2006) and Burack (1999) identified two levels of workplace spirituality, namely, (i) a vertical dimension of God, spirit or a higher power or something beyond oneself and (ii) a horizontal dimension which include one's desire to serve others including nature and universe as a whole. Both these components impact on one's behaviours and attitudes connected with the work environment. However, Giacalone and Jurkiewicz (2010) described that workplace spirituality sometimes only consists of the horizontal dimension. Workplace spirituality seeks to find sufficient facilities and opportunities to enrich and nourish employees in their need for fulfilment and actualization. Pope Paul VI (1971) and Pope Saint John Paul II (1981) maintained that a spiritual environment gives them the opportunity to view work as a spiritual exercise or a path for the enhancement of oneself and others in communion with God.

Despite its many merits, Case and Gosling (2010) observed a lack of conceptual clarity regarding workplace spirituality since the concept of spirituality embraces many dimensions and even opposing ideas. Introducing spirituality into a workplace can also cause discomfort and dislike among those who do not subscribe to any spiritual practices. Too much focus on spirituality can divert task-oriented attention of the employees (Konz & Ryan, 1999). Therefore, they warn that the implementation of spiritual practices in the workplace should be done with care and caution.

### **2.2.3 Hindu Spirituality**

Hindu spirituality is considered as one of the ancient spiritual traditions of the world (Klostermaier, 2007). The ultimate aim of Hindu practice of spirituality is the union of the



## THE CATHOLIC MARIAN SPIRITUALITY (CMS) SCALE

individual human self with the divine ( Athma-Brahma Sashatkar). For the Hindu sages, their worship of God (Madhava/Narayana ), was inseparable from their service (seva) to human beings. They taught that self-realization or self-transcendence (atmasakshatkar ) was possible only by becoming one with God (Brahman sakshatkar ).They had the profound conviction that the divine Self and the individual souls were in essence One (Aham Brahmasmi;TatTvam Asi ) (Varenne, 1976). The aim of spiritual practices is to lead the adherents from the unreal to the Real, from darkness to Light, from death to Immortality and thus experience lasting peace and happiness in this world and for eternity (Bhawuk 2011; Swami Nikhilananda, 1964).

According to Hindu spirituality, the human soul/spirit is wrapped in seven different layers of subjective experience: the outermost layer needing food for physical existence; the layer of wanting vital air\force for life and survival; the layer of mental activities; intellectual layer; the layer of bliss or joy that is beyond physical and mental dimensions of the human self; the layer of spiritual wisdom and understanding as a result of the union of the human spirit with the divine spirit; and the final stage of becoming one or dissolving completely in to the divine to the extent that there is no separation between the human and the divine (Flood, 1996, 2005).

Hindu spirituality also proposes four ways of practicing Hindu way of life. They are: 1) the way of devotion to the deity by singing hymns and chanting mantras; 2) the path of unselfish or disinterested work in a way contributing towards the good of all people and the world and the well-being of the universe; 3) the way of seeking true knowledge under the guidance of an experienced teacher; and 4) the way of contemplative meditation of reflecting

## THE CATHOLIC MARIAN SPIRITUALITY (CMS) SCALE

the goodness of the Creator manifested in nature and the life of every creature (Klostermaier, 2007; Swami Kriyananda ,1998; Swami Vivekananda,1980; Varenne,1977 ).

Hindu spirituality also suggests that its adherents undergo four stages of spiritual formation (Flood, 1996, 2005). Accordingly, until the age of 24 or 25 a devotee has to follow celibacy and live in the house of a teacher with other students learning different branches of science such as philosophy, sacred scriptures and logic. The second stage is married life in family where the couple takes the responsibility of upbringing of children and teach them perennial values (Sanathanadharma) by showing them examples from their own lives. The third stage of retirement consists of entrusting the responsibilities of family management to their children, the elderly couple prepare themselves to focus more on matters concerning the divine or liberation (moksha). The last stage consists of embracing a fully committed religious life by renouncing all the material possessions. The Hindu sage or religious person at this level lives for the well-being of all (Om loka samasta sukhino bhavantu) (Klostermaier, 2007; Swami Nikhilananda, 1964).

Hindu spirituality, however, is mainly criticized for its caste system, namely, Brahmanas who are the learned class and who perform sacrifice (pooja) in the temple; Kshatrias or the warriors and rulers; Vaishyas who are the artisans and merchants; and the labouring class of Shudras (Olivelle, 1993). Fowler (1997) observes that social stratification and class distinction existing in the Hindu society is a threat to the inherent dignity and nobility of humans and a challenge to fundamental human rights. Thus, it is evident that a deeper awareness and practice of the teachings of the sacred scriptures and the examples of their great sages among the members of the society can transform it accordingly.

#### **2.2.4 Buddhist Spirituality**

Buddhist spirituality proposes that the majority of the people all over the world are concerned about establishing happiness or contentment, reducing suffering and to build up meaningful relationships. They believe that violence, aggression, cheating and other anti-social behaviours are not natural to humans (C.J. Beck, 1989; Jacobson, 1996). Dalai Lama (1999) points out that ethical behaviour and self-discipline are important aspects of Buddhist spirituality. According to him, happiness for every person, irrespective of socio-religious and economic status, can be achieved by adhering to a moral compass. He contends that a life spent in greed and luxury is not ethical and so is unworthy.

In the Buddhist spiritual view, all beings in this world are interconnected (Dalai Lama & Chan, 2012). Human existence is determined by our basic qualities expressed in compassion, forgiveness and generosity. Of all the virtues of Buddhist spirituality, compassion towards all especially to the poor is most relevant because by practising compassion humans can make themselves and others happy. Buddhist spirituality advocates its followers to choose compassion over anger, loving-kindness over hatred and awareness over ignorance (Dalai Lama, 2012; Gunaratana, 1991; Rahula, 1959). According to Buddhist spirituality trying to find out answers to the perennial questions of what happens after death, whether the soul and body are separate, etc are not necessary for enlightenment and fulfilment. Humans do not have appropriate means to know the answers to these questions definitively. The heart of Buddhist spirituality is not speculative or metaphysical but relational (Gunaratana, 2001; Sumedho, 1995).

In the Buddhist view, wisdom and compassion are closely connected together. It is spiritual wisdom that enables one to be compassionate. Wisdom is the ability to understand

## THE CATHOLIC MARIAN SPIRITUALITY (CMS) SCALE

the interrelatedness that exists in everything (C.J. Beck, 1989). Compassion is the innate response to the awareness of this intrinsic unity in the universe. It means that one becomes aware of the impossibility of existing without the support of others. In the Buddhist spiritual view, existence is existence with others. Living compassionately also means to think and behave without ego-centric attitude. It means that each person is only a part of the whole universe and to realize one's responsibility towards others especially those suffering and less privileged (Chödrön, 1997; Dalai Lama & Chan, 2012; Feuerstein, 2003).

It is through practicing the Noble Path that one achieves the goal of compassion and wisdom (Gunaratana, 2001; Rahula, 1959; Smith & Novak, 2005; Suzuki, 1970). These eight steps of Noble Path are: right action, right speech, right livelihood, and right effort, right concentration, right mindfulness, right thinking, and right understanding. Compassion, thus, demands moral behaviour. It needs to refrain from harming others, stealing and sexual misconduct, from false speech and misuse of drugs and alcohol which cause suffering to oneself and others. Buddhist spirituality also recommends meditation and yoga for quietness and tranquility and to overcome mental stress (Gunaratana, 2001; Rahula, 1959).

Harris (2014) criticized Buddhist spirituality for the inconsistencies in the teaching of different schools and its overemphasize on suffering. He also criticized that many Buddhist practitioners treat it as a religion. They do it because of their lack of deep knowledge on the principles of Buddhism. Gutschow (2004) observed that different schools of spirituality within Buddhism have treated female monks as less important or inferior in comparison with male monks and women monks face more struggles in their spiritual journey because of the gender distinction imposed on them. Although non-violence is one of the prominent teachings of Buddhist spirituality (Rahula, 1959), Jerryson and Juergensmeyer (2010)

indicates that there is religious, political and socio-economic violence in countries such as India, Sri Lanka, Myanmar and Thailand where Buddhism is well established.

### **2.2.5 Islamic Spirituality**

Islamic spirituality is based on the belief in a merciful God (Allah) who is the sovereign authority of all that exists. God has spoken to humanity through different prophets and invited humans to worship Him alone. God's messages for humanity are revealed and recorded in the Holy Quran. According to Islamic spirituality happiness consists in the holistic well-being of the soul, mind and body. Material prosperity only provides a limited level of worldly happiness. Though a certain extent of worldly happiness is necessary for earthly existence, the believer in Allah should aspire for lasting happiness by the development and enrichment of the soul. Lasting or authentic happiness is a quality of the human soul which comes to the believer from Allah as a spiritual reward for doing good (Yusuf Ali, 2005).

Islamic spirituality gives great importance to peace. It is a basic aspect of happiness in Islamic spirituality. Real peace is a blessing from Allah. It is the result of one's total submission to the will of Allah. Imitating the mercy and kindness of Allah is an important aspect of Islamic faith. An Islamic believer has to work for the establishment of peace in all aspects of life. The invitation Allah offers to his faithful servants are to enter the "abode of peace" (Qur'an 10:25). Islamic spirituality also gives importance to achieving spiritual wisdom and intellectual knowledge along with equality and justice (Miyakawa, 2005).

In Islam, spirituality and theology are not differentiated. All the adherents of Islamic spirituality also follow basic five pillars of Islam (Nasr, 1987; Schmidtke, 2016). These basic tenants are: 1) Profession of faith or creed in a most merciful God who is the source of all joy

## THE CATHOLIC MARIAN SPIRITUALITY (CMS) SCALE

and happiness and to worship him wholeheartedly; 2) To speak to Allah through prayer five times a day either alone or in community; 3) It is from the eternal mercy and goodness of Allah that all believers receive good things both material and spiritual. All believers are commanded to share their resources with the less privileged; 4) During the month of Ramadan the followers of Islam are obliged to abstain from food, drinks from morning till evening and other necessities of life to practice self-discipline and to participate in the poverty and misery of the poor and the outcast; 5) to make a pilgrimage to Mecca at least once in a life time to intensify one's spiritual desires and to strengthen one's desire for things that pertain to Allah (Abrahamov, 2011; Ali, 2011; Picken, 2014; Schmidtke, 2016).

Hajjar (2006) criticizes Islam stating that Islamic marriage laws (Sharia laws) existing in the Islamic world encourages domestic violence and discrimination of women. Haris (2005) disapprove Islamic religion\spirituality for its religious fundamentalism and violence.

### **2.2.6 Christian Spirituality**

Schneiders (1986) suggested that spirituality encompasses the process of consciously aspiring to attain self-transcendence in terms of the ultimate value one perceives. More specifically, Christian spirituality is the experience of making Jesus Christ as the ultimate value of one's life and living this experience within the context of the Christian community (Schneiders, 2005). Furthermore, McGrath (1999) describes Christian spirituality as the way of life lived in following the beliefs and values of Christian faith in and through the guidance of the Holy Spirit. Similarly, Gonzalez (1990) maintained that Christian spirituality involves living gospel teachings by making faith the foundation for life.

The word spirituality (originally derived from the Hebrew word 'ruah' (breathe), in Christian religions means Christian life animated and guided by the Spirit of the Lord

## THE CATHOLIC MARIAN SPIRITUALITY (CMS) SCALE

(McGrath, 1999). A basic teaching of Christian spirituality is that in Jesus Christ God became man and lived among humans. Through his life and preaching Jesus Christ communicated to humans whatever is necessary for human salvation - lasting happiness for body, mind and soul (Thurson, 2005). Christian spirituality encompasses a set of principles and values to govern or guide the way of life of a believer. These values are derived from the teachings of Jesus Christ contained in the Gospels and the teachings of the Church.

Christian spiritual living is when a believer undertakes to apply the principles of the deposit of Christian faith (George, 1991). Therefore, spirituality refers to the human-divine connection. This relationship impacts the way in which humans relate to the created world. As Maloney (1992) points out, it involves a vision and energy that links the individual to Jesus Christ and directs the individual's energies in the service of the kingdom of God.

The aim of Christian spirituality is the personal experience God revealed in Jesus Christ and to continuously transform one's life based on that experience (McBrien, 1994). It challenges its followers to integrate all aspects of their lives with faith (McGrath, 1999). All these different definitions and descriptions of Christian spirituality articulate that it is a lived experience of God through the guidance of the Holy Spirit that effects the inner transformation of the whole person.

Christian spirituality also invites believers to live a radical discipleship of Christ by professing the evangelical counsels of chastity, poverty and under the inspiration of the Holy Spirit (Cole & Conner, 1997). They commit themselves fully to God and to his Church and express their commitment to God through different ministries at the service of the people following the examples of many saints in the Catholic tradition such as Saint Mary MacKillop, Saint Maximilian Maria Kolbe and Blessed Mother Theresa of Calcutta.

## THE CATHOLIC MARIAN SPIRITUALITY (CMS) SCALE

Based on different ways of interpreting the teachings of Jesus Christ, Christian spirituality is broadly divided into Catholic Christian spirituality, Orthodox Christian spirituality and Protestant Christian spirituality (Driskill, 1999; McGrath, 1999;

Staniloae, 2002). According to McBrien (1994) some of the main features of the Catholic Christian spirituality are: 1) Believing and worshipping one God in three persons- the Holy Trinity; 2) Accepting all the 73 books of the Bible as revealed by God; 3) Honouring the Blessed Virgin Mary and the Saints in the prayers of the Church and asking their intercession for the living and the dead; 4) Acknowledging the Church as a divine institution to continue the saving mission of the people of God; 5) Celebration of the seven sacraments; 6) Celebration of the daily Eucharist as the source and summit of Christian life; 7) Accepting the supreme authority of the Pope as successor of St. Peter on matters of faith and morals; and 8) Accepting all the Bishops of the Church together as the Magisterium or the teaching authority of the Church.

According to Catholic teaching the main aim of spirituality is to promote an environment of communion among all humans and the rest of the universe- a spirituality of communion (Pope Saint John Paul II, 2001). The mission of the Church is to reveal the merciful face of God revealed in Jesus Christ (Pope Francis, 2016; Pope Saint John Paul II, 1980). The Church lives the spiritual values entrusted to her by Jesus Christ by practicing the spiritual and corporal works of mercy which are instructing, advising, consoling, comforting, forgiving and bearing wrongs patiently, feeding the hungry, sheltering the homeless, clothing the naked, visiting the sick and imprisoned, and burying the dead (Catholic Church, 1997, para. 2447).



Although there are many similarities among all schools of Christian spiritualities, Orthodox Christian spirituality only use icons to venerate the saints. It places greater emphasize on the Jesus prayer taught by the early Fathers of the Church, asking the Lord Jesus Christ, Son of the living God, to have mercy on humanity (Keiser, 2011). Protestant Christian spirituality is mostly Biblical. Personal and community reading of the books of the Bible are important spiritual practice of the Protestant Christians (McGrath, 1999).

Harris (2006) criticizes Christianity for violence and division among Christians based on different denominations and faith affiliations. Dawkins (2006) also disapprove Christian nations for practicing violence and not forgiveness and patience. Nehru (2004) criticizes Christians for not following the example of Jesus but engaging in arguments regarding the nature of his divinity and humanity and persecuting each other.

The literature review, thus, shows that all the schools of spirituality have taught ideals for human flourishing and happiness for all. However, the adherents of each school need to practice the positive aspects of their teaching and turn away from all sort of harming oneself and others. Spiritual practices should enhance tolerance and balanced views. They ought to avoid all extreme positions so that theists and atheists, religious and secularists can live in harmony and peace.

### **2.3 Uniqueness of Marian Spirituality**

CMS, in this study, is operationally defined as a set of beliefs and practices to help the follower to become closely connected to Jesus Christ through imitating the virtues of the Blessed Virgin Mary, the Mother of God and of humanity. Based on the Sacred Scriptures and the Sacred Tradition of the Church, it invites the believer: 1) to deepen one's relationship with Christ; 2) to be intimately incorporated into the Church; 3) to relive it by celebrating it

## THE CATHOLIC MARIAN SPIRITUALITY (CMS) SCALE

in the liturgy and in the other prayers of the Church; and 4) to actively engage in the works of mercy and compassionate love.

CMS is distinct from other spiritual traditions, such as Hindu spirituality, Buddhist spirituality, Baha'i spirituality, Aboriginal spirituality or non-religious/secular understanding of spirituality (Verhagen, Van Praag, Lopez-Ibor, & Moussaoui, 2010). It is also different from other Christian spiritual traditions, such as Anglican, Lutheran, Methodist or Presbyterian spirituality. While most of the Protestant Churches advocate praying directly to God, the Catholic tradition upholds that praying through Blessed Mary provides them with an efficacious intercessor with God and a model of Christian discipleship (Pope Saint John Paul II, 1997).

CMS holds that Blessed Mary is the perfect model to imitate her divine Son, Jesus Christ (Pope Saint John Paul II, 1987, May 7). Imitating the virtues of Blessed Mary is central to CMS. It involves turning to Jesus through the intercession of Blessed Mary in all the needs of a devotee through different forms of prayer, such as the Rosary, the Memorare and the Hail Holy Queen. It includes singing hymns in her honour and in particular participating in the Holy Mass (Baum, 1988). In addition to these vertical dimensions of a prayerful relationship with God, the CMS has the horizontal dimension of participating in the joys and sufferings of others as Blessed Mary did. Acts of compassion, such as visiting the sick and listening to the sorrows of others, are a vital part of CMS (Balthasar, 1985; Beattie, 2005).

CMS is an integral aspect of both the Catholic faith and Christian spirituality (Balthasar & Ratzinger, 2005; Baum, 1988; Graef & Thompson, 2009; Pope Saint John Paul II, 1987; Pope Paul VI, 1974; Pope Paul VI, 1964). Authentic Marian spirituality invites the

believers to deepen their relationship with Christ and to become his witnesses in the world through the Church. It invites the believer to maintain a harmonious balance between an active and a contemplative life (Beattie, 2005). According to Balthasar (1985), the key elements of Marian spirituality can be discovered in the Blessed Virgin Mary's love of neighbour, mutual love, listening to the Holy Spirit, the Eucharist, and the love of the Church.

Marian spirituality consists of finding inspiration to follow Christ through the example of Mary. To Christians, Mary is the first Christian; she fully accepted the Will of God and was the perfect disciple of Christ. Hence, she is worthy of imitation and considered as a perfect embodiment of Christian spirituality (Pope Paul VI, 1964). Although the Blessed Virgin Mary is the Mother of Jesus and of humanity (Pope Paul VI, 1964), Mary is not the focus or centre of CMS. According to CMS, Mary is only the way which leads Christians to Christ, and devotion to her does not detract from intimacy with Jesus. Indeed, it increases it and leads to the highest levels of perfection (Pope Saint John Paul II, 1997, May 7).

### **2.4 Catholic Marian Spirituality: Conceptual Clarification**

A review of the literature on CMS suggests that it is a multi-dimensional construct. It includes dimensions such as: a) Biblical (the primary place of the Sacred Scriptures for a presentation of the role of Mary) (Baum, 1988; Manelli, 2005; Manelli, 2007); b) Christocentric (that Jesus is the source of everything in the life of Mary) (Miravalle, 2007b; Pope Saint John Paul II 1987); c) Patristic (Marian devotion as articulated during the post-biblical period by the Church Fathers) (Beattie, 2009; Gambero, 2007); d) Ecclesial (the inseparable relationship between Mary and the Church) (Balthasar & Ratzinger, 2005; Cantalamessa, 1992; Llamas, 2007); e) Liturgical (the rituals and devotions used by the Church to venerate the Mother of God) (Calabuig, 2000; Richer, 2007; Roy, 2007); and f)

## THE CATHOLIC MARIAN SPIRITUALITY (CMS) SCALE

Ecumenical (Mary's role in promoting unity among all Christians (Baum, 1988; Graef & Thompson, 2009; Stacpoole, 1989).

Baum (1988) stated that the study of the Sacred Scriptures (the Bible) is the soul of Mariology. The true heart of Marian spirituality lies in “coming to know and love Christ more deeply and more truly” (Miravalle, 2007b, p. xiv). According to CMS, Mary is absolutely dependent on Christ. Her role and importance in the history of salvation are subordinate to him, from whom she receives every grace and blessing (Manelli, 2007). According to Balthasar and Ratzinger (2005), Mary is both the embodiment and the mother of the Church. She was the Mother of the Son of God. However, she constantly placed her trust in her Son, surrendering herself completely to Him, especially in the moments of difficulties and trials in her life. Thus Mary is the perfect model for all who imitate the footsteps of Jesus. As Mary conceived Jesus in her womb and kept Him in her heart, she continues to intercede for all those who believe in her Son. She continues to be the mother of all believers in Jesus Christ—the Church (Balthasar & Ratzinger, 2005; Graef & Thompson, 2009; Pope Saint John Paul II, 1987).

The Catholic Church honours Mary with a prominent place in her liturgical prayers. The Church finds in the Virgin Mary a perfect model of worshiping God in spirit and truth. In this sense the whole liturgy of the Church is Marian, even if this character is not totally apparent (Laurentin, 2014). Despite the multi-dimensional nature of CMS, its key components are the Biblical, Christocentric, Ecclesial, and Liturgical aspects (Balthasar & Ratzinger, 2005; Baum, 1988; Leahy, 2000; Miravalle, 2007a, 2007b).

## **2.5 Measurement of Spiritual Well-Being**

Spiritual well-being (SWB) consists of having a positive relationship with oneself, others, including nature and with God (Ellison, 1983; Fisher, Francis, & Johnson, 2000; Gomez & Fisher, 2003). SWB is an inseparable companion to the concept of spirituality (Imam, Nurullah, Makol-Abdul, Rahman, & Noon, 2009). SWB is not the same as the concept of mental and physical health, although there is an association.

Gomez and Fisher (2003) described SWB as a condition of well-being, in which a person shows positive feelings and behaviour; understands relationships within oneself and others; has a sense of individuality, completeness, fulfillment, happiness, contentment, and a respectful, optimistic attitude; has inner calmness and harmony; and has a purpose in life.

## **2.6 Measurement of Spirituality/Religion**

There are empirical measures for assessing spirituality and religion (Frey, Homburg, & Osterloh, 2013; Johnstone, McCormack, Yoon, & Smith, 2012; Löckenhoff, Ironson, O'Clairigh, & Costa, 2009; McMahan & Biggs, 2012; Mostafaei, 2012; Rusu & Turliuc, 2011; Zwingmann, Klein, & Bussing, 2011). Giacalone and Jurkiewicz (2005) suggested that religious scales were typically “designed for assessing adherence of an individual to his or her theistic connection, membership affiliation, etc.” (p. 521).

Ellison (1983) developed the SWBS, which consisted of two dimensions, Existential Well-Being (EWB) and Religious Well-Being (RWB). These dimensions were assessed based on responses to ten items. Elkins, Hedstrom, Hughes, Leaf, and Saunders (1988) developed the Spiritual Orientation Inventory (SOI). This inventory has a total of 85 questions in nine subdivisions categorized based on two factors, namely, the experiential and the value dimensions. These questions are related to the personal and communal factors only.

Zwingmann, et al., (2011) evaluated the various scales on spirituality or religion. They recommended that a vulnerability-stress-model be used to locate various spiritual and religious components associated with a hypothetical path between health and stressors. This would act as a basis for classifying measures of spirituality based on their primary intention of measurement. Their study tried to identify the difference between religion and spirituality. They noted that a distinction between spirituality and religion was significant in nations with a more secular background, in which most people see themselves as spiritual but not religious.

## **2.7 Scales used to Measure Religiousness and Spirituality**

Measuring and conceptualizing spirituality are not easy tasks because of the various meanings and methods in use. In the initial stages, research focused on measuring religion rather than spirituality (George, Larson, Koenig, & McCullough, 2000; Larson et al., 1998; Sussman et al., 1997). MacDonald (2000) maintained that the following five dimensions were necessary to develop a measurement in spirituality/religion: (a) “cognitive orientation towards spirituality,” (b) “experiential/phenomenological dimension of spirituality,” (c) “existential well-being,” (d) “paranormal beliefs,” and (e) “religiousness” (p. 169).

### **2.7.1 Daily Spiritual Experience Scale (DSES)**

Underwood and Teresi (2002) presented the Daily Spiritual Experience Scale (DSES). The data for all 16 items of the DSES were obtained through two studies; a third study offered additional data on a 6 item subset; while the fourth study performed inter-rater reliability of the item subset. The scale reported ordinary spiritual experiences such as awe, joy, and feelings of inner peace. Studies using the DSES have detected ways through which life experiences can influence behaviour, emotion, health, and cognition. The DSES has

## THE CATHOLIC MARIAN SPIRITUALITY (CMS) SCALE

demonstrated reliability and has internal consistency estimates reaching .90. According to preliminary evidence, daily spiritual experiences lead to low alcohol intake, better quality of life, and social status.

### **2.7.2 The Mental, Physical and Spiritual Well-being (MPS) Scale**

Vella-Brodrick and Allen (1995) developed the Mental, Physical and Spiritual Well-being (MPS) Scale due to the emergent importance of holistic well-being. Using responses from 186 university students, an initial set of questions was established. An exploratory factor analysis was conducted and led to the number of questions being reduced from 66 to 30. Another factor analysis conducted on data collected from 358 participants indicated three factors. These were labeled the mental, physical and spiritual subscales. Test-retest reliabilities ranged from .87 to .97 for the three subscales. Internal consistency ranged from .75 to .85. The authors suggested that more psychometric assessments were needed despite these preliminary findings.

### **2.7.3 The Openness to Spiritual Beliefs and Experiences Scale (OSBES)**

The Openness to Spiritual Beliefs and Experiences Scale (OSBES) evaluates the way an individual is open to spiritual convictions and practices (Schwartz & Russek, 1999). The questionnaire contained 12 points that evaluate the extent to which a person is religious and spiritual as well as the individual's religious convictions in God or in a Greater Power. It includes beliefs about the existence of consciousness even after death; the reality of angels; extra-sensory perception; and the influence of prayer on one's well-being. A Likert scale of 1-7 is employed from 1 (Definitely No) to 7 (Definitely Yes). The Cronbach alpha was .85 and the split-half reliability was .80 (Schwartz & Russek, 1999).

#### **2.7.4 The Mysticism Scale (MS)**

The Mysticism Scale (Hood, 1975; Hood et al., 2001) measures spirituality and supernatural feelings (not specific to a particular faith or background). Supernatural feeling is generally described as an overwhelming feeling of unity with God or nature, together with an intense feeling of peace and philosophical perceptions about existential issues (Thalbourne, 1991). Hood's scale is a 32-item measure that asks respondents questions such as "have you ever felt that everything is alive" and "have you felt things were timeless and space-less?" It addresses diverse levels of ego and character attributes, such as unifying character, inner subjective character, temporal/spatial character, noetic character, ineffability, constructive influence, and spiritual quality. The response format is a 4 point Likert scale varying from -2 (Definitely Not True of my own experience or experiences) to +2 (Definitely True of my own experience or experiences), with an additional choice of "?" (I cannot decide). The scale is considered to contain sufficient construct soundness (Hood, 1975).

#### **2.7.5 The Santa Clara Strength of Religious Faith Questionnaire (SCSORF)**

The **SCSORF** Questionnaire evaluates the strength of a person's dedication to his/her spiritual conviction, irrespective of his/her religion (Plante & Boccaccini, 1997a, 1997b). It is not restricted to a particular religion, which makes it suitable for individuals from diverse religious traditions, including no religious tradition. Respondents are requested to reply to 10 items regarding the extent to which they respect their faith, depend on it, and are dynamically drawn to it. A four point Likert scale varying from 1 (Strongly Disagree) to 4 (Strongly Agree) is the response format. Examples of items are: "I pray every day" and "My faith influences several of my choices." The scale has internal reliability (Cronbach Alpha = .94-.97) and split-half reliability ( $r = .90-.96$ ) (Lewis, Shevlin, McGunckin, & Navratil, 2001;



Plante & Boccaccini, 1997a, 1997b). A CFA supports the one-factor nature of this scale (Lewis, et al., 2001).

### **2.8 Conclusion**

This review of literature tried to identify the key concepts and findings related to psychology, religion and spirituality and the most commonly used scales to measure spirituality and religion. It highlighted similar and contrasting views which were prevalent in the literature on psychology of religion and spirituality. It evaluated the past and current research in the area of psychology of religion and spirituality and identified the existing need for developing a scale to measure CMS which currently does not exist. It helped to place the main aim of this research topic, namely, the development of a multidimensional measuring instrument for CMS within the general context of religion, spirituality and health research. This was achieved through citing many empirical research findings on the link between devotion to the Blessed Virgin Mary and well-being. The literature review shows that CMS is relevant for holistic health. The main significance of this CMS Scale consists in its potential to measure the influence of CMS on different dimensions of holistic health and well-being.

## **CHAPTER THREE: RESEARCH METHODOLOGY**

### **3.1 Introduction**

This chapter provides the methodological framework carried out for the development of the CMS Scale. It describes the recruitment of the participants both for the pilot and main study, as well as materials and procedures used in this study.

### **3.2 Pilot Study**

The pilot study addressed issues such as generating items for the CMS Scale, item difficulty, item discrimination, internal consistency, response rates, and parameter estimation. This allowed the researcher to investigate the feasibility of the study (Johanson & Brooks, 2010).

Dillman (2007) proposed that administering the instrument to a sample assists the researcher: a) to identify any difficulties in the procedures to be utilized; b) to make reasonably precise estimates as to whether respondents are clustering into particular categories of questions; c) to get insight into particular questions that frequently go unanswered, and d) to determine whether particular items should be discarded before final testing.

Analysis of the pilot study items was conducted to find the measurement's psychometric properties. Johanson and Brooks (2010) suggested that for pilot item analysis, researchers might use total scale scores and correlations between item responses as item discrimination indices. To examine all possible factors suggested for this study and to reduce the number of items, Exploratory Factor Analysis (EFA) was conducted for the pilot study. EFA was employed to determine the existing relationships of measured variables. It served to

outline a set of latent constructs underlying a battery of measured variables in the main study. CFA was used for the main study to examine whether to accept or reject the factors loaded in EFA.

### **3.2.1 Participants for the Pilot Study**

The participants for the pilot study consisted of 140 Catholic lay people over the age of 18 from St. Mark's Catholic Community, Dingley Village, Victoria. They were recruited by advertising in church bulletins, personal emails, and through the personal contacts of the researcher. Printed copies of the questionnaire were distributed to those participants who volunteered to take part in the pilot study.

### **3.2.2 Pilot Study Demographics**

The pilot study demographic analysis was as follows. The study had slightly higher female participation at 53.7% compared to 46.3% male participants. Married participants were the most highly represented at 74.3% followed by single (18.4% ); divorced (3.7% ); widowed (2.9%) and 0.7% were living with partner, not married. As for ethnicity/ races 68.4% were Asian; 12.5% were Australian; 10.3% were European; 5.9% were Anglo-Celtic, and 2.9% were African. As for education, 29.4% completed undergraduate studies; 20.6% completed 12<sup>th</sup> grade; 19.9% completed a Diploma; 17.6% completed post-graduate studies; and 1.5% completed primary school studies. The study generated responses from a range of respondents, representing a diversity of the population.

### **3.3 Procedures**

#### **3.3.1 Expert Review**

In informal discussions with the priests of the religious community, a few parishioners and from literature on CMS, a pool of 60 items was generated. After further discussion with few Catholic priests and the research supervisors it was limited to 35 items. An example of an item included, “Jesus performed his first miracle at the wedding of Cana by the intercession of Mary.”

Based on their expertise in the field, their availability to review the draft questionnaire and in consultation with the Principal Supervisor, experts were chosen. These University Professors expert in the core dimensions of CMS consisted of: Dr. Austin Cooper (Professor of Mariology and Church History, MCD University of Divinity, Catholic Theological College, Melbourne); Dr. Joseph Pamplany (Professor of Sacred Scriptures, St. Joseph’s Pontifical Faculty, Kerala, India); Dr. Sebastian Panjikaran (Professor of Christology, St. Joseph’s Pontifical Faculty, Kerala, India); and Dr. George Karakunnel (Professor of Ecclesiology, St. Joseph’s Pontifical Faculty, Kerala, India). They were requested to review the items based on a 4 point Likert scale from not relevant to very relevant. Most of the items were reviewed as very relevant or relevant. There were a few items that were somewhat relevant and none of the items were determined to be not relevant. They commented that all the items were meaningful and sound and represented the core dimensions of CMS. They also gave valuable suggestions such as including items on pilgrimage, the Blessed Virgin in visual art and rewording items to make them historically true. An example would be the item which stated that the Blessed Virgin pondered on the

## THE CATHOLIC MARIAN SPIRITUALITY (CMS) SCALE

Sacred Scriptures. Following the comments from the experts, the words Sacred Scriptures were replaced with the Word of God.

In addition to the comments by Dr. Eric Marx, the Principal Supervisor at the time and Associate Professor Cecelia Winkelman, the Associate Supervisor, two other experts in scale development, namely, Dr. Ken Smith (Associate Professor, ACU, Melbourne) and Dr. Sabine Hammond (Associate Professor, Australian Psychological Society, Melbourne) also reviewed the items. They were requested to identify any difficulties or problems of the survey questionnaire in linguistic structures, ambiguities leading to measurement errors, potential comprehension problems, etc. In their review they suggested to reword or explain certain words such as “Marian lens” and to make the items comprehensible to the participants. They also suggested to make sure that the vocabulary of the questions were understandable to the participants and to add a Likert point where the participants can tick that they do not know the answer. They recommended including an explanation of CMS in the instruction to the participants. All the comments of the experts were considered for refining of the items. Comments received from these four experts of CMS and two experts in scale development are included in Appendix 4.

### **3.3.2 Semi-structured Interview: Review of the CMS Scale by Catholic Lay people (non-experts)**

In addition to the review of the item pool by six experts of the different aspects of CMS and scale development, interviewing was conducted among eight non-experts. Dillman (2007) suggested that interviewing potential participants would enable the researcher to determine whether respondents understand each item as intended and whether questions can be clearly answered. The interviews were conducted among eight Catholic lay people from

## THE CATHOLIC MARIAN SPIRITUALITY (CMS) SCALE

diverse ethnic backgrounds and age groups for approximately 15-20 minutes each. The questions asked included: 1. Is there any difficulty in understanding these questions? 2. What do you think about these questions? Are they related to your understanding and experience of Catholic Marian Spirituality? 3. What is your opinion regarding the clarity of wording? 4. Do you have any suggestions on anything you think important concerning Catholic Marian Spirituality? The interviews were recorded using a digital recorder and summarized for the refining of the draft questionnaire.

Their main comments included: 1) Reading these items gave them an opportunity to reflect about their devotion to the Blessed Mother; 2) These questions were related to their devotion to Blessed Mary; 3) Explain words such as “Christian love” and “maternal counsel” 4) Use the word evil instead of the powers of darkness; 5) Reduce the length of few of the items; and 6) If priests, nuns or religious brothers were included, make a different version for them, and for the lay people make it as simple as possible. Before administering the pilot study survey, the items were refined based on the comments received from the experts and the Catholic lay people. A brief summary of the interview responses from eight Catholic lay people are presented in Appendix 6.

### **3.4 Inclusion and Exclusion Criteria as a Result of the Pilot Study**

Since their devotion to Blessed Mary varies from that of Catholics, Protestants and other non-Catholic Christians such as Church of England or Greek Orthodox were not included. The original intent was to include all categories of Catholics: priests, nuns, religious brothers, and lay people. However, as a result of the formal interviews conducted among Catholic lay people and informal discussions with priests, nuns, seminarians and members of the Catholic lay people, it emerged that the lay people’s level of understanding was different

## THE CATHOLIC MARIAN SPIRITUALITY (CMS) SCALE

from that of priests, nuns, and religious brothers. Thus, a more simplified wording of items in the scale ensued in order to capture the lay people's comprehension of Catholic Marian Spirituality. It became apparent that there are significant variations in the understanding and hence practices of Marian Spirituality between participants who attend the Church and those who do not. From the results of the pilot study and from consultations with the research supervisors it was decided to limit the sample to Church- attending Catholic lay people. The decision was to include adults from all possible ethnic backgrounds and age groups above age eighteen.

### **3.5 Refining of the Survey Questionnaire for the Main Study**

Ensuring sound psychometric properties alone is insufficient for developing a measurement to evaluate spirituality and religion. Expert opinion and the comments of the research participants are pertinent (Koenig, 2011). The Survey Questionnaire on CMS was refined for the main study by taking into consideration: 1) Comments and recommendations given by experts on Catholic Marian Spirituality and Scale Development during the pilot study; 2) Suggestions received from the interviews with the Catholic lay people who participated in the pilot study; 3) Reliability of the items of the scale as per the reliability analysis conducted on pilot study data.

Based on the pilot study analysis, 16 items with low factor loading (less than .40) were removed from the questionnaire. Because of the different question format, which did not allow factor analysis, item 44 was also eliminated. Informal discussion with CMS experts regarding these items provided the assurance that this would not affect the content validity of the survey questionnaire. From the total number of 44 items used in the pilot study, 27 items remained for the main study.

THE CATHOLIC MARIAN SPIRITUALITY (CMS) SCALE

Table 1  
*Reliability Analysis of factors (N=140)*

Factors	Initial CMS Items	Removed Items**	Pilot study Items	Factor loading	Cronbach's Alpha
Liturgical	43 items	2,3,8	10	.83-.68	.95
Biblical	without segregation	11,17,20,21,22	9	.84-.68	.94
Ecclesial		25,26,28,31,35	4	.84-.68	.78
Christocentric		37,42,43	4	.86-.69	.88

Note. \*Q= Questionnaire \*\*16 items removed based on the pilot study findings.

Reliability analysis measures the efficacy of a study. This study used Cronbach Alpha ( $\alpha$ ) to examine the consistency of the results. A reliability test was conducted for the four factors of the CMS Scale. The estimated  $\alpha$  for the Liturgical factor was .95 while those of ecclesial had the lowest Cronbach Alpha ( $\alpha$ ) value of .78. The Cronbach Alpha results indicate that the scale items used for this study is reliable as illustrated in the table above.



# THE CATHOLIC MARIAN SPIRITUALITY (CMS) SCALE

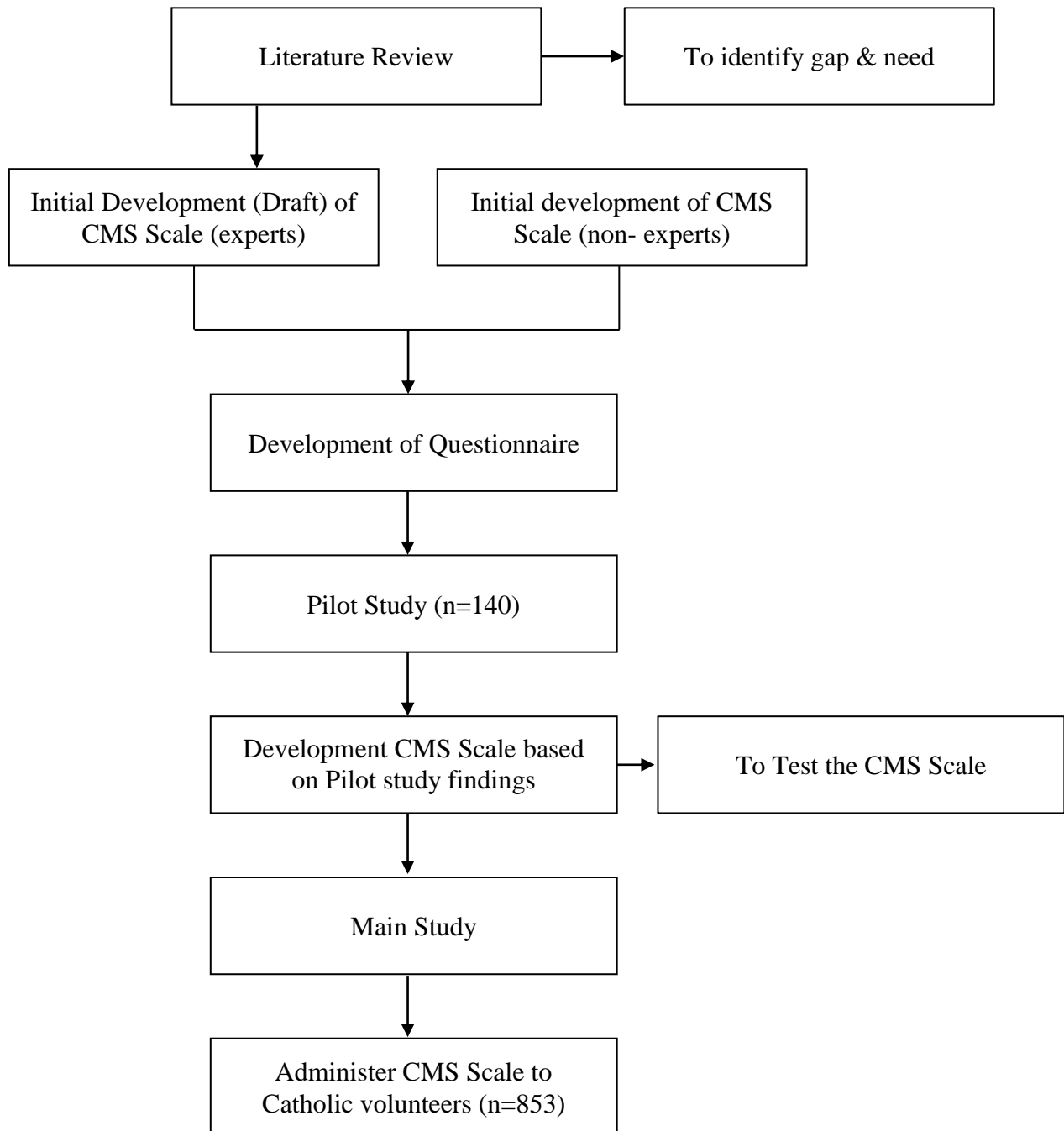


Figure 1: Research Framework adopted for this study

### **3.6 Main Study**

#### **3.6.1 Participants for the Main Study**

The participants consisted of a convenience sample of 853 church- attending Catholic lay people age eighteen or above. They were recruited from the parishes of St Joseph's Catholic Church, Springvale and St Anthony's Catholic Church, Noble Park, both belonging to the Archdiocese of Melbourne after meeting the inclusion and exclusion criteria. The participants for this study were recruited by advertising in Church bulletins, personal emails, and through the personal contacts of the researcher. An invitation letter outlining the aims and the benefits to be derived from this research project was distributed to the participants prior to their participation in this study.

#### **3.6.2 Materials: Questionnaire**

While the questionnaire was administered online, printed copies were made available to those participants who do not use the internet. The CMS Scale for the main study adopted a Likert-type response format consisting of seven choices. The response choices were "1= strongly disagree; 2= disagree; 3= slightly disagree; 4= neither agree nor disagree; 5=slightly agree; 6= agree; 7=strongly agree." In developing this scale with Likert response format, the CMS Scale provided the respondents with the choice of discriminating between the two poles. This ensured that the respondents were able to commit themselves to one response or the other (DeVellis, 2003).

#### **3.6.3 Response Rate**

The questionnaire was distributed to one thousand respondents. The table below shows that out of 1000 questionnaires distributed, 853 took part in the study, a response rate of 85.3%.

## THE CATHOLIC MARIAN SPIRITUALITY (CMS) SCALE

Description	N (%)
Questionnaire distributed in person/online	1000
Did not respond to questionnaire	147
Completely filled questionnaire	853
Response rate	85.3%

### 3.7 Demographic Characteristics

Table 2

*Frequency and Percentage value for Gender*

Gender	Frequency (n)	Percent (%)
Male	420	49.2
Female	433	50.8
Total	853	100.0

Table 2 demonstrates gender distribution of the respondents. Of 853 respondents, 433 (50.8%) were male and 420 (49.2%) were female.

Table 3

*Frequency and Percentage value for Age group*

Age group (in years)	Frequency (n)	Percent (%)
18-20	20	2.3
21-30	117	13.7
31-40	183	21.5
41-50	195	22.9
51-60	169	19.8
61-70	105	12.3
71-80	53	6.2
80+	11	1.3
Total	853	100.0

Table 3 presents the age group of the respondents. Of 853 respondents, 195 (22.9%) respondents were in the age group 41-50, followed by 183 (21.5%) in the age group 31-40,

## THE CATHOLIC MARIAN SPIRITUALITY (CMS) SCALE

169 (19.8%) respondents were in the age group 51-60, and the lowest number, 11 (1.3%), respondents were in the age group 80 and above.

Table 4  
*Frequency and Percentage value for Marital status*

Marital status	Frequency (n)	Percent (%)
Single	152	17.8
Living with a partner, not married	14	1.6
Married	627	73.5
Married but separated	12	1.4
Divorced	27	3.2
Widowed	21	2.5
Total	853	100.0

Table 4 presents the marital status of the respondents. Of 853 respondents, 627 (73.5%) were married followed by 152 (17.8%) were single, 27 (3.2%) were divorced, 21 (2.5%) were widowed, 14 (1.6%) were living with a partner, not married and 12 (1.4%) were married but separated.

Table 5  
*Frequency and Percentage values for Ethnic background*

Ethnic background	Frequency (n)	Percent (%)
Aboriginal/ Torres Strait Islander	4	0.5
Asia (including India, Sri Lanka, Pakistan, etc.)	372	43.6
Pacific Island	40	4.7
Western Europe (Italy, France, Spain, etc.)	42	4.9
Eastern Europe (Russia, Ukraine, Poland, etc.)	46	5.4
Anglo – Celtic ( UK, Ireland & Scotland)	53	6.2
Central and South America (El Salvador, Argentina, Chile, etc.)	28	3.3
North America(Canada, USA & Mexico)	109	12.8
Other Latino (Cuba, Puerto Rico, Dominican Republic, etc.)	5	0.6
Africa	55	6.4
Australia/New Zealand	92	10.8
Middle East (Israel, Jordan, Palestine, Egypt, Lebanon, etc.)	7	0.8
Total	853	100.0

## THE CATHOLIC MARIAN SPIRITUALITY (CMS) SCALE

Table 5 presents the ethnic background of the respondents. Of 853 respondents, 372 (43.6%) were Asian followed by 109 (12.8%) North American, 92 (10.8%) Australian and 4 (0.5%) Aboriginal/Torres Strait Islander.

Table 6  
*Frequency and Percentage value for level of Education*

Level of Education	Frequency (n)	Percent (%)
Not finished primary school	4	.5
Primary school	6	.7
Not finished High school	27	3.2
High School	152	17.8
TAFE/Diploma	135	15.8
Vocational training/apprenticeship	41	4.8
Undergraduate degree (BA, BSc, etc.)	316	37.0
Post-Graduate degree (MA, PhD, etc.)	172	20.2
Total	853	100.0

Table 6 presents the level of education of the respondents. Of 853 respondents, 316 (37.0%) of the respondents had completed undergraduate studies, followed by 172 (20.2%) Post-Graduate, 152 (17.8%) High School, 135 (15.8%) Diploma and 4 (0.5%) did not finish primary school.

## THE CATHOLIC MARIAN SPIRITUALITY (CMS) SCALE

Table 7  
*Frequency and Percentage value for Occupation*

Occupation	Frequency (n)	Percent (%)
Accountant	19	2.2
Housewife/Home maker	159	18.6
Manager	66	7.7
Nursing & Midwifery professionals	61	7.2
Medical doctors	19	2.2
Technicians & associate professionals	97	11.4
Elementary occupation	161	18.9
Retired	83	9.7
Social worker	4	.5
Student	66	7.7
Teaching professionals	62	7.3
Self employed	27	3.2
Service & Sales worker	22	2.6
Unemployed	7	.8
Total	853	100.0

Table 7 presents the occupation of the respondents. Of 853 respondents, 161 (18.9%) of the respondents had an elementary occupation (tasks such as selling goods in public places, or from door to door; providing street services such as cleaning, washing, collecting garbage; packing by hand, etc.), followed by 159 (18.6%) House-wife/Home maker, 97 (11.4%) Technicians and 4 (0.5%) Social workers.

### **3.8 Research Instruments and Data Collection Procedures**

For the main study Catholic lay people were recruited to complete a questionnaire concerning their beliefs and practices about CMS. The questionnaire was disseminated in two forms: an online internet version or in hard copies. It was anticipated that the questionnaire would take approximately 15 minutes to complete.

### **3.9 Procedures for the Main Study**

The data for the full study were collected by distributing the CMS Scale in both electronic and paper format among the Church going Catholic lay people in the Parishes of St. Joseph's Catholic Church, Springvale and St. Anthony's Catholic Church, Noble Park. Links to Survey Monkey where the CMS Scale was available online were sent by e-mail to five hundred respondents. Another five hundred Survey Questionnaires were distributed among the congregations on Sundays after Mass. Participation was voluntary. Confidentiality was maintained.

Survey information was collected in the month of August 2014, utilizing Survey Monkey's server located at <https://www.surveymonkey.com/s/MarianSpirituality>. The data collected on paper were also entered into Survey Monkey files. Then all records were exported into SPSS 21.0.1 and analysed. Missing data, outliers and logical checks were performed as a first level analysis. Accuracy of the data was checked by proof reading a selection of the questionnaire responses against the SPSS data window.

Using the descriptive statistics mode of SPSS, frequencies were calculated for the categorical variables. Reliability analysis was performed to assess internal reliability.

### **3.10 Development of the CMS Scale**

Based on feedback obtained during the pilot study, 27 items were retained for use in the full study. Appendix 8 displays the main study questionnaire.

#### **3.10.1 Validity**

Validity is defined as the degree to which the test scores for the intended purpose matches that of the accumulated evidence (American Educational Research Association

[AERA], American Psychological Association [APA], & National Council on Measurement in Education [NCME], 2014). In other words, it is the ability of a test to measure what it promises to. Goodwin (2002) argues that researchers should accrue validity evidence based on five distinct categories. They are: Test content (content-related), Response processes (construct-related), Internal structure (construct-related), Relations to other variables (criterion- and construct-related), and the Consequences of testing.

### **3.10.1.1 Content Validity**

Content validity is defined as “the degree to which an instrument has an appropriate sample of items for the construct being measured” (Polit & C. T. Beck, 2004, p. 423); or “...whether or not the items sampled for inclusion in the tool adequately represent the domain of content addressed by the instrument” (Waltz, Strickland, & Lenz, 2005, p. 155).

The literature concerning content validity observes that it consists of two different phases. The first one involves the researcher in the conceptualization and domain analysis which is similar to generating items. The second involves the enhancement of the content of the scale by means of expert assessment in evaluating the content of the scale (C. T. Beck & Gable, 2001; M. R. Lynn, 1986; Mastaglia, Toye, & Kristjanson, 2003).

### **3.10.1.2 Face and Construct Validity**

To ensure that the questionnaire is relevant to the objective of the study and content area, face validity measures were implemented. The process of face validation includes questionnaire evaluation through factors such as clarity of the language, readability, feasibility, and consistency of style and formatting (DeVon et al., 2007; Haladyna, 1999; Trochim, 2001). Face validity may also be referred to as usability, and evaluations of face



validity consider criteria such as word clarity, the ability of the target audience to answer the questions and the general layout and style.

Construct validity is used by researchers to establish whether the survey items used actually measure the constructs they intend to measure. High construct validity shows that the operational measure has a correlation with the theoretical concept that was used in the investigation (Turocy, 2002). It offers the researcher confidence to show what the survey can measure and what it intends (Gable & Wolf, 1993; Netemeyer, Bearden, & Sharma, 2003).

### **3.10.2 Factor Analysis**

Factor analysis is the method generally implemented in the instrument development process for construct validation. Researchers use factor analysis to empirically ascertain the interrelationships between items and to identify clusters of items that share adequate variation to justify their existence as a factor or as a construct to be measured by the instrument (Gable & Wolf, 1993). In the analysis, items are gathered into common factors. Depending upon the items, the common factors are interfaced and synthesized into fewer factors (Bryman & Cramer, 2005).

According to Bryman and Cramer (2005), loading is the process of measuring the relation between an item and factor. The portions of the constructs that are generally grouped are determined to be related items. The unrelated items are referred to as the items that do not belong to one cluster, do not define the construct and therefore should be eliminated (Munro, 2005).

Consideration of relationships between variables without establishing a particular hypothetical model is determined by means of implementing EFA (Bryman & Cramer, 2005).

## THE CATHOLIC MARIAN SPIRITUALITY (CMS) SCALE

The theoretical framework that determines the measuring direction is identified by EFA (DeVon et al., 2007). EFA is used to determine the higher variance in scores when the factors are low in numbers (Delaney, 2005; Munro, 2005). In this study both EFA and CFA were used to refine the items.

### **3.10.3 Reliability**

The reliability of the CMS Scale was obtained after all the validity processes were completed. Reliability of a questionnaire may be defined as its ability to measure the said attributes consistently and identify relationships between different items conceptually (De Von et al., 2007; Haladyna, 1999). An instrument is inadequate if it tends to be reliable but not valid (Beanland, Schneider, Lo Biondo-Wood, & Haber, 1999). DeVon et al. (2007) proposed that the following issues are to be considered by the researcher while identifying reliability: 1) Standard error of the instrument, which is the most important reliability information to report; 2) Independence of sampling; 3) Heterogeneity of content; and 4) Method of use of the instrument.

#### **3.10.3.1 Internal Consistency Reliability:**

The correlations between different items within an instrument provide an estimate of internal consistency (DeVon et al., 2007; Nunnally & Bernstein, 1994). Trochim (2001) noted that the two methods of evaluating internal consistency are split half reliability and Cronbach's alpha correlation coefficient. In the process of split half reliability the items that have similar constructs are categorized into two sets and the correlation between the two sets is calculated. The average of the split half estimates the coefficient of Cronbach's alpha. It is mostly used to determine internal consistency reliability (DeVon et al., 2007; Trochim, 2001).

According to Huck (2004), while validity relates to the accuracy of a scale, reliability refers to consistency. However, validity and reliability are not characteristics of a scale (Cronbach & Meehl, 1955; Rowley, 1976; Thompson, 2003) rather they are properties of the scores produced by that scale among a particular sample (Goodwin & Goodwin, 1999; Thompson, 2003).

### **3.11 Ethical Considerations**

Confidentiality, privacy and personal rights of the respondents were protected during the study. The respondents did not reveal their names on the questionnaires. Before the distribution of the questionnaires, the researcher obtained authorization from the involved churches where the participants were recruited. Ethics approval for the study was obtained from the Australian Catholic University Human Research Ethics Committee (HREC). An invitation letter outlining the aims and the benefits to be derived from this research project was made available to the participants prior to their participation in this study. Part of the authorization bonded the researcher to observe the research ethical standards. Protecting the identity of the respondents is paramount to any research (Panter & Sterba, 2011). All the respondents remained anonymous during and at the end of the study. This research upheld voluntary participation. To avoid any sort of damage to voluntary participation and to maintain complete anonymity, no consent form with names or signatures were received. Instead, their participation in itself was considered as their consent.

### **3.12 Conclusion**

The study adopted mixed methodology where both quantitative and qualitative methods were used to develop the CMS Scale. The questionnaire was tested for content,

## THE CATHOLIC MARIAN SPIRITUALITY (CMS) SCALE

construct and face validity through interviews and pilot study. The main study was conducted with the final questionnaire, and the data was analysed using SPSS software.

## CHAPTER FOUR: RESULTS

### 4.1 Introduction

This chapter presents the results and analysis of the quantitative data collected from the CMS Scale. The data was checked for missing data and outliers. Accuracy of the data was checked by proofreading the questionnaire against the SPSS data window.

### 4.2 Reliability Analysis

Reliability may be defined as the ability of the questionnaire to measure the attributes consistently and identify relationships between different items conceptually (De Von et al., 2007; Haladyna, 1999). The study used Cronbach's alpha for reliability analysis for each factor. Table 8 below presents the results of the reliability analysis with the range of .79 to .95. Liturgical factor had 10 items in the CMS Scale with Cronbach alpha value of .92, Biblical factor had 9 items with .91, while Ecclesial factor had .95 and Christocentric factor having the lowest Cronbach alpha value of .79 with 4 items. The results indicate a strong reliability of the factors of the CMS Scale.

Table 8  
*Reliability Analysis of the factors (N=853)*

Factors	Main study items	Factor loading	Cronbach's Alpha
Liturgical	10	.75-.54	.92
Biblical	9	.75-.54	.91
Ecclesial	4	.87-.62	.95
Christocentric	4	.93-.46	.79

\*Q= Questionnaire

## THE CATHOLIC MARIAN SPIRITUALITY (CMS) SCALE

The study used Cronbach's alpha for reliability analysis for each item. Table 9.1 below presents the results of the reliability analysis along with the descriptive statistics for each item as used in the questionnaire. Overall, the study reported strong reliability with alpha coefficients ranging from .79 to .95 and the Corrected item total Correlation (which means that correlation between each item and a scale score that excludes that item) ranging between .34 and .75.

## THE CATHOLIC MARIAN SPIRITUALITY (CMS) SCALE

Table 9

*CMS Scale Items*

1. I am interested in praying Marian prayers daily (“Holy Rosary”, “Hail Holy Queen”, “Memorare - remember O Mother”, etc.).
2. The Blessed Virgin Mary surrendered her life to God saying, “Behold the handmaid of the Lord; be it done to me according to Thy word”.
3. Visiting Shrines of the Blessed Virgin Mary strengthens my love for her.
4. Attending the Mass is more important than praying the Rosary.
5. My participation in the prayers of the Church, in honour of Mary (e.g., feasts, novenas, and rosary), deepens my love for her.
6. I try to imitate the Blessed Virgin Mary’s compassion by listening patiently to others when they tell me their problems.
7. I am interested in reading Marian literature (writings about Mary) to deepen my knowledge of the Blessed Virgin Mary.
8. I seek the Blessed Virgin Mary’s intercession in all my needs.
9. Like the Apostle John, I have received the Blessed Virgin Mary into my life as my spiritual mother.
10. I try to imitate the Blessed Virgin Mary by keeping my mind and heart pure.
11. I deepen my devotion to the Blessed Virgin Mary by singing hymns in her honour.
12. The Blessed Virgin Mary is not equal to or greater than God but only His creature.
13. The more I love Mary, the more I love the Church.
14. My spiritual union with the Blessed Virgin Mary helps me to share Christ’s love with those in need (like visiting the sick, volunteering my time and sharing my resources).
15. I am interested in wearing a scapular and/or medals with the Blessed Virgin Mary’s image on them.
16. Seeing the Blessed Virgin Mary in art helps me to think about her life.
17. The Blessed Virgin Mary’s Assumption into heaven gives me hope that I can be united with God forever in heaven.
18. The Blessed Virgin Mary recognizes that it is the Almighty God who has done great things for her.
19. The Blessed Virgin Mary is not a person of the Holy Trinity.
20. I honour the Virgin Mary as the Mother of God.
21. The Blessed Virgin Mary leads me to her Son, Jesus, telling me, “Do whatever he tells you.”
22. Jesus performed his first miracle at the wedding of Cana by the intercession of the Blessed Virgin Mary.
23. Blessed Mary stood at the foot of the Cross and is a model for offering forgiveness through Jesus.
24. I try to look at all the events of my life through the eyes of the Blessed Virgin Mary.
25. The Blessed Virgin Mary is a model for living the teachings of the Bible.
26. The Blessed Virgin Mary was filled with the Holy Spirit throughout her life.
27. I try to imitate the virtues of the Blessed Virgin Mary (faith, hope and love) in my daily life.

THE CATHOLIC MARIAN SPIRITUALITY (CMS) SCALE

Table 9.1

*Summary Statistics for the CMS Scale: Item Means, Standard Deviations, Scale Alphas and Intra-class Reliability*

Item	Mean	SD	Corrected Items total correlation	ICC Reliability
1.	6.48	0.97	.67	.95
2.	6.62	0.86	.61	.95
3.	5.99	1.31	.63	.95
4.	6.11	1.38	.34	.95
5.	6.05	1.21	.74	.95
6.	5.85	1.22	.75	.95
7.	5.62	1.35	.67	.95
8.	6.11	1.21	.73	.95
9.	6.59	0.85	.64	.95
10.	5.85	1.22	.75	.95
11.	5.59	1.48	.65	.95
12.	6.19	1.31	.48	.95
13.	5.85	1.22	.75	.95
14.	6.14	1.10	.69	.95
15.	5.66	1.50	.63	.95
16.	5.95	1.21	.63	.95
17.	6.34	1.29	.37	.95
18.	6.60	0.97	.60	.95
19.	6.49	1.00	.74	.95
20.	6.34	1.28	.38	.95
21.	6.41	1.10	.62	.95
22.	6.40	1.05	.68	.95
23.	6.24	1.08	.69	.95
24.	6.12	1.19	.72	.95
25.	6.52	0.92	.68	.95
26.	6.52	0.92	.67	.95
27.	5.39	1.48	.66	.95

Note. ICC = Intraclass Correlation Coefficient.



### 4.3 Correlation Analysis

Table 10 shows that there were positive and significant correlations between the subscales of the Catholic Marian Spirituality Scale. The correlation values range between ( $r=.26$  to  $.76$ ), while the correlations are as listed between Christocentric and Biblical ( $r=.52$ ), Ecclesial and Biblical ( $r=.58$ ), Ecclesial and Christocentric ( $r=.26$ ), Liturgical and Biblical ( $r=.71$ ), Liturgical and Christocentric ( $r=.30$ ) and Liturgical and Ecclesial ( $r=.76$ ). All the subscales are significant at .01 levels. Hence there is a relationship between the subscales of the Catholic Marian Spirituality Scale. The relationships for .30 and .26 are weak, for .52 and .58 moderate, and for .71 and .76 strong. Hence, the strength of the relationships ranges from weak to strong. This may indicate that there is a direct proportion between the dimensions of CMS Scale.

Table 10  
*Correlation, means and standard deviations of all variables*

	1	2	3	4
1. Liturgical	-			
2. Biblical	.71**	-		
3. Ecclesial	.76**	.58**	-	
4. Christocentric	.30**	.52**	.26**	-
Mean	5.9	6.5	5.9	6.2
SD	1.0	0.7	1.1	1.0

*Note.* \*\* $P < .01$  level

#### **4.4 Confirmatory Factor Analysis for Construct validity**

EFA is a technique of data analysis where large volumes of data are first condensed into smaller sets after which the theoretical structure of the data set is determined. In this study, the underlying elements of the measurement were examined using factor analysis. Principal components analysis with varimax rotation was performed using SPSS statistical software version 21. Minimum Eigen values of 1.0 were used to determine the number of items for each factor and single items with loading above .40 were retained. The factorability of 27 items was examined. The 27 items that were justified were analysed using CFA with respect to the underlying study objectives and the formulated hypotheses.

THE CATHOLIC MARIAN SPIRITUALITY (CMS) SCALE

Table 11

*Results of the confirmatory factor analysis of the CMS Scale*

Item	1	2	3	4
3.	.75			
5.	.73			
7.	.69			
15.	.67			
24.	.62			
1.	.62			
11.	.61			
27.	.59			
16.	.55			
8.	.54			
25.		.82		
26.		.81		
19.		.68		
9.		.67		
21.		.67		
18.		.64		
22.		.60		
2.		.59		
23.		.54		
6.			.87	
13.			.87	
10.			.87	
14.			.62	
17.				.93
20.				.93
12.				.57
4.				.46
Fit indices				
$\chi^2$		2974.13		
df		305		
$\chi^2/df$		9.8		
CFI		.91		
RMSEA		0.10		

*Note.* df = degrees of freedom; CFI = comparative fit index; RMSEA = root mean square error of approximation.

Factor loadings and fit indices for the CFA are shown in Table 11. The fit indices suggest that the four-factor model is a partially acceptable fit for the data,  $\chi^2/df = 9.8$ ; CFI =

## THE CATHOLIC MARIAN SPIRITUALITY (CMS) SCALE

.91, RMSEA = 0.10 (90% CI = 0.062; 0.067). The results of the factor analysis and the four main factors are listed below. Factor loadings ranged from .93 to .46. Ten items with inputs from respondents were loaded under Factor One, Liturgical, with loading ranging from .75 to .55. Nine were loaded under Factor Two, Biblical, with loading ranging from .82 to .55. Four items were loaded under Factor Three, Ecclesial, with loading ranging from .87 to .62. Four items loaded under Factor Four, Christocentric, with loading ranging from .93 to .47.

Based on the face, content, and construct validation conducted during the pilot study, 27 of the 44 CMS Scale items were selected for inclusion in the main study. The final 27 items showed that the four-factor model with RMSEA (>0.08) and CFI (>0.90) is a partially acceptable fit for the data. Generally, it is not recommended to perform EFA and CFA on the same data set (Bandalos & Finney, 2010). However, Van Prooijen and Van der Kloot (2001) maintain that if there is no agreement between EFA and CFA in the same data set, it is unlikely to have confirmation in a different data set and, therefore, the same data set can be used for both the techniques. There are also other studies which used the same data set for conducting EFA and CFA (Hair, Black, Babin, & Tantham, 2006; Hurley et al., 1997). In the case of the data collected for this thesis, I was unable to obtain a second data sample from the same population since many of the anonymous survey participants were not regularly attending the Church. Hence, a decision was made, based on the reasons cited above, to perform both EFA and CFA on the same data.

## **CHAPTER FIVE: DISCUSSION AND CONCLUSION**

This chapter considers the main findings of this research and its possible meaning in terms of its main aims. It examines the findings of this study in the light of previous research conducted in relation to CMS. It shows the limitations and future recommendations and concludes with the usefulness of this study for further research in the diverse fields of the psychology of religion and spirituality.

### **5.1 Conceptual Clarification and Content Validity**

The first goal of conceptual clarification of CMS was obtained from the literature review, expert review and interview with Catholic lay people among whom the survey was conducted. There are many possible dimensions for CMS. However, it was clear from the literature that there are four key dimensions. Therefore, in this study, CMS was conceptualised as a four dimensional construct consisting of the Liturgical, the Biblical, the Ecclesial, and the Christocentric factors (Baum, 1988; Graef & Thompson, 2009; Hahn, 2001; Miravalle, 2007a, 2007b). As a reminder to the reader, the distinction between the four dimensions is re-stated here. The Liturgical dimension involves the rituals and devotions used by the Church to venerate the Mother of God (Baum, 1988; Graef & Thompson, 2009). The Biblical dimension of CMS includes the primary place of the Sacred Scriptures for a presentation of the role of the Blessed Virgin Mary (Miravalle, 2007a). The Ecclesial dimension underlines the inseparable relationship between Mary and the Church (Baum, 1988; Hahn, 2001; Miravalle, 2007a, 2007b). The Christocentric dimension encompasses that Jesus is the source of everything in the life of Mary (Hahn, 2001).

An operational definition was formulated in the beginning of the research process to clarify the concept of CMS as understood in this study. The operational definition of CMS

## THE CATHOLIC MARIAN SPIRITUALITY (CMS) SCALE

formed from different theological/spirituality studies is one of the findings of this research. Here, CMS was defined as a set of beliefs and practices that help the believer to become closely connected to Jesus Christ through imitating the virtues of the Blessed Virgin Mary, the Mother of God and of humanity. This set of beliefs and practices can act as an invitation to the believer. That is, based on the Sacred Scriptures and the Sacred Tradition of the Church, the believer is invited to: 1) relive one's devotion to the Blessed Virgin by celebrating it in the liturgy and in the other prayers of the Church; 2) be intimately incorporated into the Church; 3) deepen one's relationship with Christ; and 4) actively engage in the works of mercy and compassionate love.

To define CMS, Catholic priests were involved—experts in the four dimensions of CMS. In the past, it was said that priests should keep away from psychotherapy and, conversely, that therapists should stay out of spirituality (Prest & Keller, 1993). However, here, there was collaboration between spirituality experts and scale development experts. This resulted in a virtuous circle where each expert input contributed to the development of the CMS Scale. This type of collaboration between spirituality/ religious experts and psychology experts may be beneficial in multicultural/ethnic countries like Australia where many migrants come from social situations where religion/spirituality has profound influence (Hill, 2005; Loewenthal, 2013; Pargament et al., 2013).

Review by scale development experts helped to reword a few items making them more understandable to the Catholic lay people. Interviewing of eight Catholic lay people also helped to ensure that the participants would understand each item clearly and how it related to their experience of devotion to the Mother of God. As a result, it was decided to include only Church-attending Catholic lay people above the age of 18 from any

ethnic/educational background. This is because the understanding of CMS by lay people and clergy/religious can differ significantly. Generally speaking, priests and religious nuns and brothers have better opportunity for receiving religious education at a higher level. Thus the first aim of conceptual clarification and establishing content validity for the pilot study items was realised through a review of literature, expert review and interviewing of the Catholic lay people.

### **5.2 Refining of the items using Exploratory Factor Analysis (EFA) and Confirmatory Factor Analysis (CFA)**

Although EFA extracted four factors of CMS, the result showed that both Ecclesial and Christocentric factors have only minimum items which assess these factors. CFA was used for the main study to examine the model fit for accepting or rejecting it. In CFA the generally suggested values for fit the model:  $\chi^2/df < .5$ ,  $p < .05$ , CFA, AGFI, GFI  $> .90$ ; RMSEA and RMR  $< .08$  (Bryman & Cramer, 2005; DeVellis, 2003; Polit & C. T. Beck, 2004). In this study only CFI  $> 0.9$ ,  $\chi^2/df$  and RMSEA failed to fall within the suggested value. CFA fit indices suggest that the four-factor model is a partially acceptable fit for the data. Therefore, this aim was partially achieved. Similar EFA and CFA were found by the previous studies of spiritual scale development, for example, Faith at Work Scale (FWS) (M. L. Lynn, Naughton, & VanderVeen, 2008).

DeVellis (2003) proposed that the feasibility of a survey questionnaire depends on reducing participant burden without avoiding relevant items that best represent a factor. EFA was chosen to reduce the number of items and to test the factor loadings in the CMS Scale. The result of the EFA suggested that a four factor structure (i.e. Liturgical, Biblical, Ecclesial

## THE CATHOLIC MARIAN SPIRITUALITY (CMS) SCALE

and Christocentric) was most appropriate for the CMS Scale, consistent with the operational definition.

In the pilot study, when factor analysis was performed, many items were loaded below the acceptable level and were therefore eliminated from the main study. Although factor analysis helped to reduce the number of items for each factor (and thereby reducing participant burden), it had the negative effect of minimising the measurability of the Ecclesial/Community and Christocentric factors of CMS.

In the main study, Factor I, Liturgical, consists of 10 items such as, “Visiting Shrines of the Blessed Virgin Mary strengthens my love for her”; “I deepen my devotion to the Blessed Virgin Mary by singing hymns in her honour”; and “I seek the Blessed Virgin Mary’s intercession in all my needs.” These items represented spiritual dispositions and behaviours of a believer in expressing his/her CMS in terms of Liturgical participation and other prayers of the Church.

This is consistent with the previous research conducted on the liturgical dimension of CMS. Roy (2007) and Jelly (1986) proposed that participation in the prayers of the Church in honour of the Blessed Virgin, singing hymns in her honour and, above all, imitating the virtues of the Blessed Virgin Mary are essential aspects of CMS. Catholics around the world, for generation after generation, venerate the Blessed Virgin Mary asking her intercession in their many needs (Graef & Thompson, 2009). While ordinary veneration or honour is given to all the Saints, the Catholic Church offers the highest veneration to the Mother of God in the liturgical prayers (Manelli, 2005). The Blessed Virgin is given highest honour in the prayers of the Church because she played an intimate part in the mysteries of Jesus Christ for human salvation (Miravalle, 2007b). Hahn (2001) and Calabuig (2000) showed that the



## THE CATHOLIC MARIAN SPIRITUALITY (CMS) SCALE

Blessed Virgin always leads the faithful to deeper trust in Jesus. The Blessed Virgin leads the worshipping community to increasing love for Jesus. She is the perfect model for all worshipers of Jesus Christ in the liturgical prayers of the Church.

Factor II, Biblical, consists of 9 items such as, “The Blessed Virgin Mary is a model for living the teachings of the Bible”; “The Blessed Virgin Mary leads me to her Son, Jesus, telling me, ‘Do whatever he tells you’”; and “Jesus performed his first miracle at the wedding of Cana by the intercession of the Blessed Virgin Mary.” The Biblical items represented beliefs and practices of a believer that shows the primary place of the Sacred Scriptures in the understanding of the role of the Blessed Virgin Mary in his/her life. These findings of Factor II are compatible with the theological/spirituality research conducted on CMS.

Pontifical International Marian Academy (2007), Manelli (2005) and Baum (1988) describe that the earliest information available on the Blessed Virgin Mary is mostly gathered from the Bible, especially the New Testament. Based on the Biblical teachings, Catholic Christians only worship the three Persons of the Holy Trinity, namely, Father, Son and the Holy Spirit. To worship is to acknowledge that one is created by God and depends completely on God for one’s existence. Since the Blessed Virgin is a creature of God, she is not worshiped but only venerated. Her devotees accept her as their spiritual mother and ask her intercession in all their needs. The Blessed Virgin Mary performs her motherly role by leading all who ask her intercession telling them to obey the commandments of God. Manelli (2007) found that the love and the veneration that the Church gives to the Mother of God are based on Divine Revelation. The Sacred Scriptures show that the Blessed Virgin pondered the Word of God constantly in her heart and led the faithful to obey the commandments of God. It is the Blessed Virgin who leads the faithful to God, as the Son of God came through Mary.

## THE CATHOLIC MARIAN SPIRITUALITY (CMS) SCALE

Attachment theory, proposed by Bowlby (1982), holds that all humans are psychophysically inclined, through all stages of life, to look for protection and safety in connection with attachment figures principally one's mother/father. Kirkpatrick (2005) developed a spiritual/religious dimension to this theory. In most religious/spiritual traditions, a unique and personal inner bonding with God or the divine is central to many people's religious/spiritual experience. Kirkpatrick (2005) presented the theory that various features of religious/spiritual beliefs and practices may demonstrate caring attachment. For example, certain beliefs that God or the divine is all pervasive and mindful to alleviating sorrowful situations from the lives of people could imply features of attachment or bonding. He posited that this unique bonding with God provides a loving relationship similar to the bonding experienced by children and mothers.

In their struggles in life, people use different coping mechanisms (Pargament, 1997). Pargament and Abu Raiya (2007) showed that many people in their struggle for achieving meaning and purpose in life or when faced with different sources of stress and anxiety, turn to religious/spiritual resources. They do this mostly through different forms of prayer and asking God's intervention in their life.

The findings of this study may also be related to attachment as well as coping. It seems that Catholic lay people have a spiritual and psychological attachment with the Blessed Virgin. They develop this attachment by honouring the Blessed Virgin Mary as the Mother of God, seeking Blessed Mary's intercession in all their needs and accepting the Blessed Virgin into their lives as their spiritual mother. They may experience psychological coping effects such as finding comfort during the death of a significant person, when faced with illness or other moments of sorrowful or stressful experiences. Notermans (2009) showed that CMS

## THE CATHOLIC MARIAN SPIRITUALITY (CMS) SCALE

also functions as a connecting link between the living and the dead, deepening the hope of grieving people that one day they will be reunited with their beloved dead through the intercession of the Blessed Virgin.

Factor III, Ecclesial/Community, consists of 4 items such as “The more I love Mary, the more I love the Church” and “I try to imitate the Blessed Virgin Mary’s compassion by listening patiently to others when they tell me their problems.” In addition to beliefs, these items represented imitating the compassionate love of the Blessed Virgin to all humanity. Again, the findings for Factor III are consistent with previous research. Cantalamessa (1992) found that the Blessed Virgin is the mirror or figure of the Church. Devotion to Virgin Mary leads to the imitation of her virtues. Balthasar and Ratzinger (2005) proposed that the Blessed Virgin is the embodiment of the Church. She is a perfect model for Christian discipleship. The Blessed Virgin empowers her devotees to love God in and through the Church. Love for Mary increases one’s love for the Church. According to Llamas (2007), Pontifical International Marian Academy (2007) and Pope Paul VI (1974), anyone who is spiritually united to Jesus Christ through the Sacrament of Baptism also has received the Blessed Virgin Mary as his or her spiritual mother. As the true mother of Jesus, the Blessed Virgin also is the Mother of the Church. The Blessed Virgin is a spiritual model for all the members of the Church. An authentic expression of Marian spirituality is found when the devotee is willing to imitate the Blessed Virgin’s compassionate love in his or her daily life. Love for the Blessed Virgin brings one closer to the Church and is expressed through one’s social commitment.

Factor IV, Christocentric, consists of 4 items such as, “Attending the Mass is more important than praying the Rosary” and “I honour the Virgin Mary as the Mother of God.”

## THE CATHOLIC MARIAN SPIRITUALITY (CMS) SCALE

These items represented the fundamental teaching of CMS that Jesus is the source of everything in the life of Mary (Saint John Paul II, 1997, May 7). These factor loadings are also consistent with other studies. Hahn (2001), Miravalle (2007a, 2007b) proposed that the study of the Blessed Virgin Mary (Mariology) by its very nature is linked to Christology as the concepts of mother and child are naturally linked. For Christians Jesus Christ is the visible manifestation of the invisible God. Jesus is the self-revelation of God who became flesh through the Blessed Virgin Mary by the overshadowing of the Holy Spirit. She is the mother of Jesus Christ who brought him to the world. The Virgin Mary's importance is subordinate to Jesus whom she constantly adored and worshiped in her heart. Hence, active participation in the celebration of the Eucharist and living a Eucharist centred life is a pertinent aspect of the Christocentric dimension of CMS (Hahn, 2001; Manelli, 2005).

### **5.3 Establishing Reliability of the CMS Scale**

Based on the pilot study analysis, 16 items with low factor loading (less than .40) were rejected. Because of the different question format, which did not allow factor analysis, item 44 was also eliminated. From the total number of 44 items used in the pilot study, 27 items remained for the main study.

The reliability test was conducted for the four factors of the CMS Scale used for the *pilot* study. The Cronbach alpha ( $\alpha$ ) obtained for the four factors ranged from .78 for the Ecclesial to .95 for the Liturgical; all indicating high reliability.

The reliability test of Cronbach's alpha conducted on the CMS Scale for the *main* study showed strong reliability with coefficient alphas ranging from .79 to .95. The Liturgical factor had 10 items in the study with a Cronbach alpha value of .92; the Biblical factor had 9 items with .91; while the Ecclesial factor had .95 and the Christocentric factor had the lowest

## THE CATHOLIC MARIAN SPIRITUALITY (CMS) SCALE

Cronbach alpha value of .79. Hair, Black, Babin, Anderson, & Tantham (2006) and Thorndike (1997) proposed that as a rule of thumb Cronbach's alpha value .7 and above is acceptable for reliability analysis. The results indicate a strong reliability of the items. These high reliability coefficient values indicate that the items on the scale demonstrate good reliability among the four factors analysed here: Liturgical, Biblical, Ecclesial and Christocentric.

The reliability results of the present study indicate that the CMS Scale has high internal consistency or reliability. The results are also in agreement with those obtained for another scale, The SCSORF (Santa Clara Strength of Religious Faith) Questionnaire. The SCSORF is used to evaluate the strength of people's dedication to their spiritual conviction, irrespective of their religion; its internal reliability for Cronbach's alpha ranges from .94-.97 (Lewis et al., 2001; Plante & Boccaccini, 1997a, 1997b).

Literature on the psychology of religion, spirituality and health identifies two major contradictory arguments. One is to see spirituality and religion as unrelated and opposing constructs (Fuller, 2001; Tanyi, 2002). The other is to see them as interrelated (Hill et al., 2000; Koenig, 2011; Pargament, 1999). The findings of the reliability analysis in this study appear to support the second argument. This is because the items used in this study represent the key elements of Catholic Christian religion as expressed in Marian spirituality.

In the past, CMS has been mostly studied conceptually in the fields of Mariology and spiritual theology (Baum, 1988; Graef & Thompson, 2009; Jelly, 1986; Pontifical International Marian Academy, 2007). Most scholars investigated one of the key dimensions of CMS: the Biblical (Hahn, 2001; Manelli, 2005, 2007), the Ecclesial (Balthasar & Ratzinger, 2005; Cantalamessa, 1992; Llamas, 2007), the Christocentric (Miravalle, 2007b;

## THE CATHOLIC MARIAN SPIRITUALITY (CMS) SCALE

Saint John Paul II, 1987), or the Liturgical (Calabuig, 2000; Richer, 2007; Roy, 2007). These studies have provided the theoretical framework for the development of the CMS Scale. This CMS Scale which I developed to empirically measure CMS indicated that amongst the four factors, the Liturgical dimension was the predominant factor in the Church-attending Catholic lay people. This may mean that the lay people who participated in the study assessed their devotion to the Blessed Virgin in terms of participation in liturgical celebrations and devotions within the church environment.

This may be explained by the general principle that right belief is connected to right practice (orthodoxy is connected to orthopraxy) (Manelli, 2005; Pope Paul VI, 1974) which is also applicable to the Liturgical dimension. Indeed, Richer (2007) and Roy (2007) proposed that devotion to the Blessed Virgin Mary is developed in the believing community. It is expressed through asking the Blessed Virgin Mary to pray for them and pray with them to God Almighty.

This study also shows that CMS is expressed not only through participation in the religious/spiritual activities such as attending Mass, visiting the Shrines, singing hymns, reciting prayers, and so on but also by showing compassionate love towards others as demonstrated, for example, by listening to the sorrows of others and visiting the sick. Thus the CMS Scale shows the interrelationship between faith and action.

### **5.4 Limitations and Recommendations**

I have developed the CMS Scale that could be used to investigate the relationship between CMS and other areas of research such as health and well-being. But is an empirical scale sufficient? Spiritual convictions and religious beliefs are expressed through acts of kindness and compassion. Religious celebrations are rich in rituals and physical symbols

## THE CATHOLIC MARIAN SPIRITUALITY (CMS) SCALE

signifying spiritual meaning (Newberg & Waldman, 2007). Spirituality/religion is more internal than external. It involves a person's relationship with the Transcendent which enables its adherents to form their views and attitudes; these impact on every aspect of their life. Therefore, by their very nature, the abstract realities of spirituality, religion and faith transcend empirical measurement. It is difficult to capture all aspects of spirituality/religion by means of a few, or even many, relevant items in a scale (Koenig, 2011).

Moreover, Teddie and Tashakkori (2009) in proposing a rationale for mixed methodology stated that complexity and depth involved in many of human behaviours cannot be sufficiently explained by results obtained by statistical analysis. According to them, mixed methods are necessary to strengthen and demonstrate research results obtained particularly in social and behavioural sciences. This observation is all the more relevant for research in spirituality and religion which often contains motivations and behaviours rich in meaning (Koenig, 2011). When researchers are interested in assessing how CMS impacts on different aspects of well-being, such as quality of life, satisfaction with life, happiness in life and positive and negative emotions, mixed methods may be used to integrate quantitative and qualitative methods.

Another question is how applicable this CMS Scale would be to all 23 Rites in the Catholic Christian Rites? As the four core dimensions are common to all 23 Rites, this CMS Scale can be used to assess CMS in all these Catholic Traditions. What it cannot measure, however, is the contribution of specific expressions of a particular Rite. This includes rituals or sacred symbols and sacred stories that are unique to that Rite. The repeated references in this study to the Liturgical, Biblical, Ecclesial and Christocentric dimensions as understood and accepted by the Catholic Church, limit the use of this scale to members of the Catholic Christian Tradition. It cannot be used among non-Catholic populations.

## THE CATHOLIC MARIAN SPIRITUALITY (CMS) SCALE

Although many studies have used convenience sampling (Koenig, 2011), by the nature of the sampling technique, the test pool is narrowed and limits generalisation. Future studies may be done with random or with other sampling methods. However, in this study, while not a random sample, there was a comparatively high number of participants. The four factor model used here provided results that would enable the CMS Scale to be used for other studies as described above. However, it is not known whether the addition of other factors such as Anthropological and Ecumenical dimensions of CMS would enhance the CMS Scale. It might be important in order to compare differences between Catholic Traditions from various backgrounds and other Christian Denominations. In addition, because of factor loading considerations, only 4 items were included for each of the Ecclesial and Christocentric dimensions of CMS Scale. This compared with 10 and 9 items for Liturgical and Biblical dimensions, respectively. Though as few as 4 relevant items can capture a factor, it is recommended to use more relevant items to increase the psychometric properties of the measuring instrument (DeVellis, 2003; Dillman, 2007; Goodwin, 2002). Therefore if more items could be identified they could be utilised in the future.

Holloway (2006) suggested that ethnicity, culture and racial beliefs influence spiritual perspectives. The current study was conducted amongst predominantly Asian Catholic communities. Therefore, it may be beneficial to conduct future studies amongst other culturally or geographically diverse communities, both nationally and internationally. Such studies may show whether the findings of this study are universal or whether there are differences among various Catholic populations. Further psychometric work is needed to establish other aspects of validity such as, discriminant and convergent validity. Although this study has not addressed all issues, it is a starting point for further research.



## THE CATHOLIC MARIAN SPIRITUALITY (CMS) SCALE

American Educational Research Association, American Psychological Association and National Council of Measurement in Education (1999) maintains that the psychometric property of validity is applicable to the concepts in psychology of religion and spirituality as it is applicable to other branches of social sciences. According to Hill and Edwards (2013), given the complexity of spiritual/ religious experiences, the main measures of validity used in psychology of religion and spirituality are construct validity attained through criterion and content validity. The other important measures in this field are convergent validity and discriminant validity. In this thesis, content validity measures of the different dimensions of CMS have been tested. Future studies, to establish the convergent validity of CMS, by demonstrating a correlation between CMS and Catholic Faith Inventory (CFI) (Boyack, Duggan & Huesing, 1986), may be undertaken. Discriminant validity of CMS could be established by finding out the degree to which CMS is not correlated with Materialism Scale (Richins & Dawson, 1992). However, in psychology of religion and spirituality, discriminant validity is “less commonly used” (Hill & Edwards, 2013, p.53).

### **5.5 Conclusion**

Despite potential limitations, the results of this study provide preliminary evidence that the CMS Scale is a reliable and valid measure. The present study has sought to identify and explore the underlying factors in CMS and to develop a measurement for the same. The findings revealed that the CMS is composed of four factors (Liturgical, Biblical, Ecclesial and Christocentric). Thus, at least from the Catholic Christian perspective, the present study revealed the link between the knowledge and practice of religious teachings leading to spirituality.

## THE CATHOLIC MARIAN SPIRITUALITY (CMS) SCALE

In this study, spirituality is not only understood as a vertical relationship with the Transcendent, but as a horizontal relationship with others as well. According to CMS, one's prayerful relationship with God also has the horizontal dimension of participating in the joys and sufferings of others as Blessed Mary did. Acts of compassion, such as visiting the sick and listening to the sorrows of others are a vital part of CMS (Balthasar, 1985; Beattie, 2005). The findings of the present study provide the connection between religion and spirituality, thus, making it a resource for an integral approach in diverse fields of psychology and other social sciences. Studies have shown that participating in prayers and rituals in honour of Mary, the Mother of God, has significant correlation with happiness and well-being (Bernardi et al., 2001; Rossetti, 2011; Skrzypinksa & Chudzik, 2012; Snowdon, 2002). One beneficial aspect may be that administering the CMS Scale may increase the respondents' awareness, knowledge and practice of their spiritual relationship with God through the Blessed Virgin Mary and thus may impact their happiness and well-being.

With the development of the CMS Scale, health researchers interested in the link between CMS and well-being can now measure the constructs appropriate to their field. Given that it has been statistically tested and has emerged as a reliable instrument with content and face validity, the CMS Scale may benefit the field of psychology of religion and spirituality. It helps to establish the credibility of the field amongst other social sciences. The present study measures dispositional and behavioural categories connected to beliefs and practices of CMS which includes praying the rosary, singing hymns in honour of Mary and participating in other Marian devotions.

The CMS Scale is useful in promoting Marian devotion to enhance holistic health in the context of Catholic pastoral counselling. Anthropological studies show that people around

## THE CATHOLIC MARIAN SPIRITUALITY (CMS) SCALE

the world join with the Blessed Virgin Mother of God to empower themselves to deal with their struggles in life. Their pilgrimages to Marian Shrines and their devotion to the Blessed Virgin help them either to cope with or to overcome their problems in daily life (Gemzöe, 2009; Notermans, 2007, 2008). The CMS Scale can serve as a facilitator of well-being and health discussions especially in pastoral counselling sessions or in spiritual direction. It can be administered among any Church- attending Catholic lay people from any ethnic background as these items were reviewed by experts and were comprehensible to the lay people.

## References

- Abrahamov, B. (2011). *Divine love in Islamic mysticism: The teachings of Al-Ghazali and Al-Dabbagh*. London, UK: Taylor and Francis Ltd.
- Ali, M.M. (2011). *The religion of Islam: A comprehensive discussion of the sources, principles and practices of Islam* (6th ed.). Whitefish, MT: Literary Licensing, LLC.
- Allport, G. W. (1950). *The individual and his religion: A psychological interpretation*. New York, NY: Macmillan.
- American Educational Research Association, American Psychological Association, & National Council of Measurement in Education (1999). *Standards for educational and psychological testing*. Washington, DC: American Educational Research Association.
- American Educational Research Association [AERA], American Psychological Association [APA], & National Council on Measurement in Education [NCME] (2014). *Standards for educational and psychological testing*. Washington, DC: American Educational Research Association.
- Aten, J. D., & Leach, M. M. (2009). *Spirituality and the therapeutic process: A comprehensive resource from intake to termination*. Washington, DC: American Psychological Association.
- Balthasar, H. U. V. (1985). Life and institution in the Church. *Communio: International Catholic Review*, 12, 25-32.
- Balthasar, H. U. V., & Ratzinger, Cardinal J. (2005). *Mary: The Church at the source*. San Francisco, CA: Ignatius Press.
- Bandalos, D.L., & Finney, S.J. (2010). *Factor analysis: Exploratory and confirmatory*. In G.R. Hancock & R.O. Mueller (Eds.), *The reviewer's guide to quantitative methods in the Social Sciences*. New York, NY: Routledge.

## THE CATHOLIC MARIAN SPIRITUALITY (CMS) SCALE

- Baum, Cardinal W. (1988). *The Virgin Mary in intellectual and spiritual formation (Letter from the Congregation for Catholic Education)*. Vatican City: Libreria Editrice Vaticana.
- Beanland, C., Schneider, Z., Lo Biondo-Wood, G., & Haber, J. (1999). *Nursing Research: Methods, critical appraisal and utilisation*. Sydney: Mosby.
- Beattie, T. (2005). *Mary and spirituality, New SCM dictionary of Christian spirituality*, London: SCM.
- Beattie, T. (2009). Mary in patristic theology. In S.J. Boss, (Ed.), *Mary, The complete resource* (pp.75-105). York Road, London: Continuum.
- Beck, C.J. (1989). *Everyday Zen: Love and work*. London, UK: HarperCollins.
- Beck, C.T., & Gable, R.K. (2001). Ensuring content validity: An illustration of the process. *Journal of Nursing Measurement*, 9, 201-215.
- Bernardi, L., Sleight, P., Bandinelli, G., Cencetti, S., Fattorini, L., Wdowczyk-Szulc, J., & Lagi, A. (2001). Effect of rosary prayer and yoga mantras on autonomic cardiovascular rhythms: comparative study. *British Medical Journal*, 323, 1446-1449. doi:10.1136/bmj.323.7327.1446
- Bhawuk, D. (2011). *Spirituality and cultural psychology*, In A. Marsella (Ed.), *International and cultural psychology*. New York, NY: Springer.
- Boyack, K., Duggan, D.R., & Huesing, P. (1986). *Catholic Faith Inventory (CFI)*. New York, NY: Paulist Press.
- Bowlby, J. (1982). *Attachment and loss: Vol. 1. Attachment*. New York, NY: Basic Books.
- Bryman, A., & Cramer, D. (2005). Quantitative data analysis with SPSS12 and 13. In *A guide for social scientists*. East Sussex, UK: Routledge.

## THE CATHOLIC MARIAN SPIRITUALITY (CMS) SCALE

- Burack, E. H. (1999). Spirituality in the workplace. *Journal of Organizational Change Management, 12*, 280–291. doi: [10.1108/09534819910282126](https://doi.org/10.1108/09534819910282126)
- Calabuig, I.M. (2000). The liturgical cult of Mary in the East and West, In A. J. Chupungco (Ed.), *Handbook for liturgical studies: Vol. V. Liturgical time and space* (pp.219-298). Collegeville, MN: The Liturgical Press.
- Canda, E.R., & Furman, L.D. (2010). *Spiritual diversity in social work practice: The heart of helping*. New York, NY: Oxford University Press.
- Cantalamessa, R. (1992). *Mary: Mirror of the Church*. Collegeville, MN: The Liturgical Press.
- Case, P., & Gosling, J. (2010). The spiritual organization: Critical reflections on the instrumentality of workplace spirituality, *Journal of Management Spirituality and Religion, 7*, 1-29. doi: [10.1080/14766086.2010.524727](https://doi.org/10.1080/14766086.2010.524727)
- Catholic Church. (1997). *Catechism of the Catholic Church*. Vatican City: Libreria Editrice Vaticana.
- Chödrön, P. (1997). *When things fall apart: Heart advice for difficult times*. Boston, MA: Shambhala.
- Cole, B., & Conner, P.M. (1997). *Christian totality: Theology of the consecrated life*. Staten Island, NY: Alba House.
- Cronbach, L.J., & Meehl, P.E. (1955). Construct validity in psychological tests. *Psychological Bulletin, 52*(4), 281-302. doi:10.1037/h0040957
- Dalai Lama. (1999). *Ethics for the new millennium*. New York, NY: Riverhead Books.
- Dalai Lama. (2012). *Beyond religion: Ethics for a whole world*. Boston, MA: Cengage Learning, Inc.

## THE CATHOLIC MARIAN SPIRITUALITY (CMS) SCALE

- Dalai Lama, & Chan, V. (2012). *The wisdom of compassion: Stories of remarkable encounters and timeless insights*. London, UK: Transworld Publishers.
- Dawkins, R. (2006). *The God delusion*. New York, NY: Bantam Books.
- Delaney, C. (2005). The spirituality scale, development and psychometric testing of a holistic instrument to assess the human spiritual dimension. *Journal of Holistic Nursing*, 23, 145-167.
- Derezotes, D.S. (2006). *Spiritually oriented social work practice*. Boston, MA: Pearson/Allyn and Bacon.
- Derks, S.W. (2009). *Power and pilgrimage: Dealing with class, gender and ethnic inequality at a Bolivian Marian shrine ( Nijmegen studies in development and cultural change ( NICCOS))*. London, U.K: Transaction Publishers.
- DeVellis, R.F. (2003). *Scale development: Theory and applications*. Thousand Oaks, CA: Sage Publications, Inc.
- DeVon, H.A., Block, M.E., Moyle-Wright, P., Ernst, D.M., Hayden, S.J., Lazzara, D.J., ...Kostas-Polston, E. (2007). A psychometric toolbox of testing validity and reliability. *Journal of Nursing Scholarship*, 39, 155-164. doi:10.1111/j.1547-5069.2007.00161.x
- Dillman, D. A. (2007). *Mail and internet surveys – the tailored design method*. ( 2nd ed.). New York, NY: John Wiley & Sons, Inc.
- Driskill, J.D. (1999). *Protestant spiritual exercises: Theology, history, and practice*. London, UK: Morehouse Publishing.
- Dixon, R. E. (2005). *The Catholic community in Australia*. Kew, Australia: Christian Research Association.

## THE CATHOLIC MARIAN SPIRITUALITY (CMS) SCALE

- D'Souza, R. (2007). The importance of spirituality in medicine and its application to clinical practice. *The Medical Journal of Australia*, 186, S57-S59.
- Elkins, D., Hedstrom, L., Hughes, L., Leaf, J., & Saunders, C. (1988). Toward a humanistic-phenomenological spirituality. *Journal of Humanistic Psychology*, 28, 5–18.  
doi:10.1177/0022167888284002
- Elkins, D.N. (1999). Spirituality. *Psychology Today*, 32, 44-47.
- Ellison, C.W. (1983). Spiritual well-being: Conceptualization and measurement. *Journal of Psychology and Theology*, 11, 330-340.
- Emblen, J.D. (1992). Religion and spirituality defined according to current use in nursing literature. *Journal of Professional Nursing*, 8, 41-47. doi:10.1016/8755-7223(92)90116-G
- Emmons, R.A. (1999). *The psychology of ultimate concerns: Motivation and spirituality in personality*. New York: Guilford Press.
- Fernando, M., & Jackson, B. (2006). The influence of religion-based workplace spirituality on business leaders' decision-making: an inter-faith study. *The Journal of Management and Organization*, 12, 23-39. doi: 10.5172/jmo.2006.12.1.23
- Feuerstein, G. (2003). *The deeper dimension of yoga: Theory and practice*. Boston, USA and London, UK: Shambhala.
- Fisher, J. W., Francis, L. J., & Johnson, P. (2000). Assessing spiritual health via four domains of spiritual wellbeing: the SH4DI. *Pastoral Psychology*, 49, 133–145.  
doi:10.1023/A:1004609227002
- Flood, G. D. (1996). *An introduction to Hinduism*. Cambridge, UK: Cambridge University Press.



## THE CATHOLIC MARIAN SPIRITUALITY (CMS) SCALE

- Flood, G. D. (Ed.). (2005). *The Blackwell companion to Hinduism*. Oxford, UK: John Wiley and Sons Ltd.
- Fowler, J. (1991). Stages in faith consciousness. *New directions for child and adolescent development*, 199, 27-45. doi: 10.1002/cd.23219915204
- Fowler, J. W. (1995). *Stages of Faith: The psychology of human development and the quest for meaning*. New York, NY: HarperCollins Publishers.
- Fowler, J. (1997). *Hinduism: Beliefs and practices*. Brighton, UK: Sussex Academic Press.
- Frankl, V. E. (1986). *The doctor and the soul*. New York, NY: Random House.
- Frey, B.S., Homberg, F., & Osterloh, M. (2013). Organizational control systems and pay-for-performance in the public service. *Organization Studies*, 34, 949-972. doi: 10.1177/0170840613483655
- Fry, L. (2005). *Toward a theory of ethical and spiritual wellbeing, and corporate social responsibility through spiritual leadership*. In R.A. Giacalone, C.L. Jurkiewicz & C. Dunn (Eds.), *Positive psychology in business ethics and corporate responsibility*. Greenwich, UK: Information Age Publishing.
- Fuller, R.C. (2001). *Spiritual, but not religious: Understanding unchurched America*. New York, NY: Oxford University Press.
- Gable, R. K., & Wolf, M. B. (1993). *Instrument development in the affective domain: Measuring attitudes and values in corporate and school settings* (2nd ed.). Boston, MA: Kluwer Academic Publishers.
- Gambero, L. (2007). Mary and the Fathers of the Church. In M. Miravalle, (Ed.), *Mariology: A guide for priests, deacons, seminarians, and consecrated persons* (pp.121-149).Goleta, CA: Seat of Wisdom Books.

## THE CATHOLIC MARIAN SPIRITUALITY (CMS) SCALE

- Ganje-Fling, M., Veach, P.M., Kuang, H., & Houg, B. (2000). Effects of childhood sexual abuse on client spiritual well-being. *Counseling and Values, 44*, 84-91. doi: 10.1002/j.2161-007x.2000.tb00157.x
- Gemzöe, L. (2009). Caring for others: Mary, death and the feminization of religion. In A. K. Hermkens, W. Jansen, C. Notermans (Eds.), *Moved by Mary: The power of pilgrimage in the modern world* (pp. 147-163). Burlington, VT: Ashgate Publishing Limited.
- George, E.G. (Ed.) (1991) Ignatius of Loyola: The spiritual exercises and selected works. New York, NY: Paulist Press.
- George, L. K., Larson, D. B., Koenig, H. G., & McCullough, M. E. (2000). Spirituality and health: What we know, what we need to know. *Journal of Social and Clinical Psychology, 19*, 102–116. doi:10.1521/jscp.2000.19.1.102
- Giacalone, R., & Jurkiewicz, C. (2005). *From advocacy to science: The next steps in workplace spirituality and research*. New York, NY: Guildford.
- Giacalone, R. A., & Jurkiewicz, C. L. (2010). *Handbook of workplace spirituality and organizational performance*. Armonk, NY: Taylor & Francis Inc.
- Gilbert, M.C. (2000). Spirituality in social work groups: Practitioners speak out. *Social Work with Groups, 22*, 67-84. doi: 10.1300/J009v22n04\_06
- Gomez, R., & Fisher, J. W. (2003). Domains of spiritual well-being and development and validation of the spiritual well-being questionnaire. *Personality and Individual Differences, 35*, 1975–1991. doi:10.1016/S0191-8869(03)00045-X
- Gonzalez, J. (1990). *Manana: Christian theology from a Hispanic perspective*. Nashville, TN: Abingdon.

## THE CATHOLIC MARIAN SPIRITUALITY (CMS) SCALE

- Goodwin, L. D. (2002). Changing conceptions of measurement validity: An update on the new standards. *Journal of Nursing Education, 41*, 100–106.
- Goodwin, L. D., & Goodwin, W. L. (1999). Measurement myths and misconceptions. *School Psychology Quarterly, 14*, 408-427. doi:10.1037/h008901
- Gorsuch, R.L. (1990). Measurement in psychology of religion revisited. *Journal of Psychology and Christianity, 9*, 82-92.
- Gorsuch, R. L., & Miller, W. R. (1999). Assessing spirituality. In W.R. Miller (Ed.), *Integrating spirituality into treatment: Resources for practitioners*, (pp. 47-64). Washington, D. C.: American Psychological Association.
- Graef, H., & Thompson, T.A. (2009). *Mary: A history of doctrine and devotion*. Notre Dame, IN: Ave Maria Press.
- Gunaratana, H. (1991). *Mindfulness in plain English*. Boston, MA: Wisdom Publications.
- Gunaratana, H. (2001). *Eight mindful steps to happiness: Walking the Buddha's path*. Boston, MA: Wisdom Publications.
- Gutschow, K. (2004). *Being a Buddhist nun: the struggle for enlightenment in the Himalayas*. Cambridge, MA: Harvard University Press.
- Hahn, S. (2001). *Hail, Holy Queen: The Mother of God in the Word of God*. Broadway, New York, NY: Doubleday.
- Hair, J.F., Black, W.C., Babin, B.R., Anderson, R.E. & Tantham, R.L. (2006). *Multivariate Data Analysis* (6th ed). Upper Saddle River, NJ: Prentice Hall.
- Hajjar, L. (2006). Religion, state power, and domestic violence in Muslim societies: A framework for comparative analysis. *Law & Social Inquiry, 29*, 1-38. doi: [10.1086/423688](https://doi.org/10.1086/423688)

## THE CATHOLIC MARIAN SPIRITUALITY (CMS) SCALE

- Haladyna, T. (1999). *Developing and validating multiple-choice test items*. Mahwah, NJ: Lawrence Erlbaum Associates.
- Hamilton, D. M., & Jackson, M. H. (1998). Spiritual development: Paths and processes. *Journal of Instructional Psychology, 25*, 262-270.
- Harris, S. (2005). *The end of faith: Religion, terror, and the future of reason*. New York, NY: W. W. Norton.
- Harris, S. (2006). *Letter to a Christian nation*. New York, NY: Alfred. A. Knopf.
- Harris, S. (2014). *Waking Up: A guide to spirituality without religion*. New York, NY: Simon & Schuster.
- Hermkens, A. (2007). The power of Mary in Papua New Guinea. *Anthropology Today, 23*, pp. 4-8. doi: 10.1111/j.1467-8322.2007.00495.x
- Hill, P. C. (2005). Measurement assessment and issues in the psychology of religion and spirituality. In R.F. Paloutzian & C. L. Park (Eds.), *Handbook of the psychology of religion and spirituality* (43-61). New York, NY: Guilford Press.
- Hill, P. C. (2013). *Measurement in the psychology of religion and spirituality*. In R. F. Paloutzian & C. L. Park (Eds.), *Handbook of the psychology of religion and spirituality* (2nd ed.). New York, NY: Guilford Press.
- Hill, P. C., Pargament, K.I., Hood, R.W., Jr., McCullough, M. E., Swyers, J.P., Larson, D. B., & Zinnbauer, B.J. (2000). Conceptualizing religion and spirituality: Points of commonality, points of departure. *Journal for the Theory of Social Behavior, 30*, 51-77. doi: 10.1111/1468-5915.00119
- Hill, P. C., & Dwiwardani, C. (2010). *Measurement at the interface of psychiatry and religion: Issues and existing measures*. In P. J. Verhagen, H. M. van Praag, J. J.

## THE CATHOLIC MARIAN SPIRITUALITY (CMS) SCALE

- Lopez-Ibor, J. L. Cox, & D. Moussaoui (Eds.), *Psychiatry and religion: Beyond boundaries*. New York, NY: Wiley & Sons.
- Hill, P. C., & Edwards, E. (2013). *Measurement in the psychology of religiousness and spirituality: Existing measures and new frontiers*. In K. Pargament (Ed.-in-Chief), J. Exline & J. Jones (Assoc. Eds.), *APA handbooks in psychology: APA handbook of psychology, religion, and spirituality*. Washington, DC: American Psychological Association. doi: 10.1037/14045-003
- Hill, P.C. & Wood, R. (1999). *Measures of religiosity*. Birmingham, AL: Religious Education Press.
- Hill, P. C., & Pargament, K. I. (2003). Advances in the conceptualization and measurement of religion and spirituality: Implications for physical and mental health research. *American Psychologist*, *58*, 64-74. doi: [10.1037/0003-066x.58.1.64](https://doi.org/10.1037/0003-066x.58.1.64)
- Hodge, D. R. (2005). Spiritual life maps: A client-centered pictorial instrument for spiritual assessment, planning, and intervention. *Social work*, *50*, 77-87.  
doi:10.1093/sw/50.1.77
- Holloway, M., 2006. Death the great leveller? Towards a transcultural spirituality of dying and bereavement. *Journal of Clinical Nursing*, *15*, 833–839. doi.org/10.1111/j.1365-2702.2006.01662.x
- Hood, R. W. (1975). The construction and preliminary validation of a measure of reported mystical experience. *Journal for the Scientific Study of Religion*, *14*: 29–41.  
doi:10.2307/1384454
- Hood, R. W., Jr., Ghorbani, N., Watson, P. J., Ghramaleki, A. F., Bing, M. N., Davison, H. K., ... Williamson, W. P. (2001). Dimensions of the mysticism scale: Confirming the

## THE CATHOLIC MARIAN SPIRITUALITY (CMS) SCALE

- three-factor structure in the United States and Iran. *Journal for the Scientific Study of Religion*, 40, 691-705. doi:10.1111/0021-8294.00085
- Hood, R. W., Hill, P. C., & Spilka, B. (2009). *The psychology of religion: An empirical approach* (4th ed.). New York, NY: Guilford Press.
- Huck, S. (2004). *Reading statistics and research* (4th ed.). Boston, MA: Pearson.
- Hughes, P., Reid, S., & Pickering, C. (2010). *Shaping Australia's spirituality*. Australia: Mosaic Press.
- Hurley, A. E., Scandura, T. A., Schriesheim, C. A., Brannick, M. T., Seers, A., Vandenberg, R. J., & Williams, L. J. (1997). Exploratory and confirmatory factor analysis: Guidelines, issues, and alternatives. *Journal of Organizational Behavior*, 18, 667–683. doi: [10.1002/\(sici\)1099-1379\(199711\)18:6<667::aid-job874>3.0.co;2-t](https://doi.org/10.1002/(sici)1099-1379(199711)18:6<667::aid-job874>3.0.co;2-t)
- Imam, S. S., Nurullah, A. S., Makol-Abdul, P. R., Rahman, S. A., & Noon, H. M. (2009). Spiritual and psychological health of Malaysian youths. *Research in the Social Scientific Study of Religion*, 20, 96-97. doi:10.1163/ej.9789004175624.i-334.28
- Jacobson, N. P. (1996). *Buddhism: The religion of analysis*. Carbondale & Edwardsville, IL: Southern Illinois University Press.
- James, W. (1958). *The varieties of religious experience: A study in human nature*. New York, NY: New American Library.
- Jelly, F.M. (1986). *Madonna: Mary in the Catholic tradition*. Eugene, OR: Wipf and Stock Publishers.
- Jerryson, M.K., & Juergensmeyer, M. (Eds.), (2010). *Buddhist warfare*. New York, NY: Oxford University Press.
- Johanson, G.A., & Brooks, G.P. (2010). Initial scale development: Sample size for pilot studies. *Educational & Psychological Measurement*, 70, 394-400.

## THE CATHOLIC MARIAN SPIRITUALITY (CMS) SCALE

- Johnson, P. E. (1959). *The psychology of religion*. Nashville, TN: Abingdon Press.
- Johnstone, B., McCormack, G., Yoon, D. P., & Smith, M. L. (2012). Convergent/divergent validity of the brief multidimensional measure of religiousness/spirituality: Empirical support for emotional connectedness as a “spiritual” construct. *Journal of Religion and Health, 51*, 529-41. doi:10.1007/s10943-011-9538-9
- Jung, C. G. (1969). *Psychology and religion: West and East* (2nd ed.). R.F.C. Hull (Trans.). *The collected works of C.G. Jung, Vol 11*. London, UK: Routledge & Kegan Paul.
- Kaldor, P., Hughes, P. and Black, A. (2010). *Spirit matters: How making sense of life affects wellbeing*. Australia: Mosaic Press.
- Keiser, M. (2011). *A beginner's guide to spirituality: The Orthodox path to a deeper relationship with God*. Ben Lomond, CA: Conciliar Press.
- King, S.M. (2007). Religion, spirituality, and the workplace: Challenges for public administration. *Public Administration Review, 67*, 103-114. doi: 10.1111/j.1540-6210.2006.00700.x
- Kirkpatrick, L. A. (2005). *Attachment, evolution, and the psychology of religion*. New York, NY: The Guilford Press.
- Klostermaier, K. K. (2007). *A survey of Hinduism* (3rd ed.). Albany, NY: SUNY Press.
- Koenig, H.G. (2011). *Spirituality and health research: Methods, measurement, statistics and resources*. Conshohocken, PA: Templeton Foundation Press.
- Koenig, H. G., King, D. E., & Carson, V. B. (2012). *Handbook of religion and health*. (2nd ed.). New York, NY: Oxford University Press.
- Koenig, H. G., McCullough, M. E., & Larson, D. B. (2001). *Handbook of Religion and Health*. New York, NY: Oxford University Press.

## THE CATHOLIC MARIAN SPIRITUALITY (CMS) SCALE

- Koltko-Rivera, M. E. (2006). Rediscovering the later version of Maslow's hierarchy of needs: Self-transcendence and opportunities for theory, research, and unification. *Review of General Psychology, 10*, 303-317. doi:10.1037/1089-2680.10.4.302
- Konz, G., & Ryan, F. (1999) Maintaining an organizational spirituality: no easy task. *Journal of Organizational Change Management, 12*, 200-210. doi:  
[10.1108/09534819910273865](https://doi.org/10.1108/09534819910273865)
- Larson, D. B., Swyers, J. P., & McCullough, M. E. (Eds.). (1998). *Scientific research on spirituality and health: A consensus report*. Baltimore, MD: National Institute for Healthcare Research.
- Laurentin, R. (2014). *Mary in scripture, liturgy, and the Catholic Tradition*. Oxford, UK: Paulist Press.
- Leahy, B. (2000). *The Marian profile: In the ecclesiology of Hans Urs Von Balthasar*. New York, NY: New York City Press.
- Leak, G. C., DeNeve, K. M., & Greteman, A.J. (2007). The relationship between spirituality, assessed through self-transcendent goal strivings, and positive psychological attributes. *Research in the Social Scientific Study of Religion, 18*, 263-279. doi:10.1163/ej.9789004158511.i-301.102
- Lewis, C. A., Shevlin, M., McGuckin, C., & Navratil, M. (2001). The Santa Clara Strength of Religious Faith Questionnaire: Confirmatory Factor Analysis. *Pastoral Psychology, 49*, 379-384. doi:10.1023/A:1010370728546
- Llamas, E. (2007). Mary, mother and model of the Church. In M. Miravalle, (Ed.), *Mariology: A guide for priests, deacons, seminarians, and consecrated persons* (pp.549-596).Goleta, CA: Seat of Wisdom Books.



## THE CATHOLIC MARIAN SPIRITUALITY (CMS) SCALE

- Löckenhoff, C. E., Ironson, G. H., O'Cleirigh, C. and Costa, P. T. (2009). Five-factor model personality traits, spirituality/religiousness, and mental health among people living with HIV. *Journal of Personality*, 77, 1411–1436. doi: 10.1111/j.1467-6494.2009.00587.x
- Loewenthal, K. M. (2013). Religion, spirituality, and culture: Clarifying the direction of effects. In K. I. Pargament (Ed.), *APA handbook of psychology, religion, and spirituality: Vol. 1. Context, theory, and research* (pp. 239-255). Washington, DC: American Psychological Association. doi.org/10.1037/14045-013
- Lynn, M. R. (1986). Determination and quantification of content validity. *Nursing Research*, 35, 382-385. doi:10.1097/00006199-198611000-00017
- Lynn, M. L., Naughton, M. J., & VanderVeen, S. (2008). Faith at work scale (FWS): Justification, development, and validation of a measure of Judeo-Christian religion in the workplace. *Journal of Business Ethics*, 85, 227-243. doi: 10.1007/s10551-008-9767-3
- MacDonald, D. A. (2000). Spirituality, description, measurement, and relation to the five factor model of personality. *Journal of Personality*, 68, 153-197. doi:10.1111/1467-6494.t01-1-00094
- Maloney, R. P. (1992). *The way of Vincent de Paul: A contemporary spirituality in the service of the poor*. Brooklyn, New York, NY: New City Press.
- Manelli, S.M., (2005). *All generations shall call me blessed: Biblical Mariology*. New Bedford, MA: Academy of the Immaculate.
- Manelli, S.M. (2007). The Virgin Mary in the New Testament. In M. Miravalle, (Ed.), *Mariology: A guide for priests, deacons, seminarians, and consecrated persons* (pp.47-119). Goleta, CA: Seat of Wisdom Books.

## THE CATHOLIC MARIAN SPIRITUALITY (CMS) SCALE

- Marler, P. L., & Hadaway, C. K. (2002). "Being religious" or "being spiritual" in America: A zero-sum proposition? *Journal for the Scientific Study of Religion*, *41*, 289-300.  
doi:10.1111/1468-5906.00117
- Marshall, W. P. (2002). The limits of secularism: Public religious expression in moments of national crisis and tragedy. *Notre Dame Law Review*, *78*, 11-34.
- Maslow, A. (1971). *The farther reaches of human nature*. New York, NY: The Viking Press.
- Mastaglia, B., Toye, C., & Kristjanson, L. (2003). Ensuring content validity in instrument development: Challenges and innovative approaches. *Contemporary Nurse*, *14*, 281-291. doi:10.5172/conu.14.3.281
- McBrien, R. P. (1994). *Catholicism*. London, UK: Bloomsbury Publishing PLC.
- McGrath, A.E. (1999). *Christian spirituality: An introduction*. Oxford, UK: Blackwell Publishing.
- McMahon, B. T., & Biggs, H. C. (2012). Examining spirituality and intrinsic religious orientation as a means of coping with exam anxiety. *Vulnerable Groups & Inclusion*, *3*, 173-212. doi:10.3402/vgi.v3i0.14918
- Mercadante, L.A. (2014). *Belief without borders: Inside the minds of the spiritual but not religious*. New York, NY: Oxford University Press.
- Miravalle, M. (2007a). *Mariology: A guide for priests, deacons, seminarians, and consecrated persons*. Goleta, CA: Seat of Wisdom Books.
- Miravalle, M. (2007b). *Meet Mary: Getting to know the Mother of God*. Manchester, NH: Sophia Institute Press.
- Miyakawa, F. M. (2005). *Five percenter rap: God hop's music, message, and black Muslim mission*. Bloomington, IN: Indiana University Press.

## THE CATHOLIC MARIAN SPIRITUALITY (CMS) SCALE

- Moberg, D. O. (1984). Subjective measures of spiritual well-being. *Review of Religious Research, 25*, 351-364. doi:10.2307/3511368
- Moberg, D. O. (2005). Research in spirituality, religion, and aging. *Journal of Gerontological Social Work, 45*, 11-40. doi:10.1300/J083v45n01\_02
- Mostafaei, A. (2012). Examining the relationship between religious orientation and coping strategies. *Annals of Biological Research, 3*, 5729-5733.
- Munro, B. H. (2005). *Statistical methods for health care research*. Philadelphia, PA: Lippincott, Williams & Wilkins.
- Musick, M. A., Traphagan, J.W., Koenig, H.G., & Larson, D.B. (2000). Spirituality in physical health and aging. *Journal of Adult Development, 7*, 73-86.  
doi:10.1023/A:1009523722920
- Nasr, S.H. (1987). *Islamic art and spirituality*. Albany, NY: SUNY Press.
- Nehru, J. (2004). *Glimpses of world history*. New Delhi, India: Penguin Books.
- Netemeyer, R.G., Bearden, W.O., & Sharma, S. (2003). *Scaling procedures: Issues and applications*. Thousand Oaks, CA: Sage Publications.
- Newberg, A., D'Aquili, E., & Rause, V. (2001). *Why God won't go away: Brain science and the biology of belief*. New York, NY: Balantine Books.
- Newberg, A., & Waldman, M. R. (2007). *Born to believe: God, science, and the origin of ordinary and extraordinary beliefs*. New York, NY: Free Press.
- Noble, K. (2001). *Riding the windhorse: Spiritual intelligence and the growth of the self*. Cresskill, NJ: Hampton Press.
- Notermans, C. (2007). Loss and healing: A Marian pilgrimage in secular Dutch society. *Ethnology, 46*, 217- 233.

## THE CATHOLIC MARIAN SPIRITUALITY (CMS) SCALE

- Notermans, C. (2008). Local and global icons of Mary: An ethnographic study of a powerful symbol. *Anthropos*, 103, 471-481.
- Notermans, C. (2009). Connecting the living and the dead: Re-memembering the family through images of Mary. In: A.K. Hermkens, W. Jansen, C. Notermans (Eds.), *Moved by Mary: The power of pilgrimage in the modern world* (pp. 135-147). Burlington, VT: Ashgate Publishing Limited.
- Nunnally, J. C., & Bernstein, I. (1994). *Psychometric theory*. New York, NY: McGraw-Hill.
- Olivelle, P. (1993). *The Ashrama system: The History and hermeneutics of a religious institution*. New York, NY: Oxford University Press.
- Paloutzian, R. F., & Ellison, C.W. (1982). Loneliness, spiritual wellbeing and quality of life. In L. A. Peplau & D. Perman (Eds.), *Loneliness: A sourcebook of current theory, research, and therapy* (pp.224-237). New York, NY: Wiley.
- Panter, A. T., & Sterba, S. K. (Eds.). (2011). *Handbook of ethics in quantitative methodology*. New York, NY: Psychology Press.
- Pargament, K. I. (1997). *The psychology of religion and coping: Theory, research, practice*. New York, NY: Guilford Press.
- Pargament, K. I. (1999). The psychology of religion and spirituality? Yes and no. *International Journal for the Psychology of Religion*, 9, 3-16.  
doi:10.1207/s15327582ijpr0901\_2
- Pargament, K. I. (2007). *Spiritually integrated psychotherapy: Understanding and addressing the sacred*. New York, NY: Guildford Press.
- Pargament, K. I., & Abu Raiya, H. (2007). A decade of research on the psychology of religion and coping: Things we assumed and lessons we learned. *Psyke & Logos*, 28, 742-766.

## THE CATHOLIC MARIAN SPIRITUALITY (CMS) SCALE

- Pargament, K. I., Mahoney, A., Exline, J., Jones, J., & Shafranske, E. P. (2013). Envisioning an integrative paradigm for the psychology of religion and spirituality. In K.I. Pargament, J. Exline, J. Jones, A. Mahoney, & E. Shafranske (Eds.). *APA handbooks in psychology: APA handbook of psychology, religion, and spirituality. Volume 1, context, theory, and research*. Washington, DC: American Psychological Association.
- Picken, G. (2014). *Spiritual purification in Islam: The life and works of Al-Muhasibi*. London, UK: Taylor and Francis Ltd.
- Piedmont, R. L. (1999). Does spirituality represent the sixth factor of personality? Spiritual transcendence and the five-factor model. *Journal of Personality, 67*, 985-1013. doi: 10.1111/1467-6494.00080
- Piedmont, R. L. (2001). Spiritual transcendence and the scientific study of spirituality. *Journal of Rehabilitation, 67*, 4-14.
- Plante, T. G., & Boccaccini, M. T. (1997a). Reliability and validity of the Santa Clara strength of religious faith questionnaire. *Pastoral Psychology, 45*, 429-437. doi:10.1007/BF02310643
- Plante, T. G., & Boccaccini, M. T. (1997b). The Santa Clara strength of religious faith questionnaire. *Pastoral Psychology, 45*, 375-387. doi:10.1007/BF02230993
- Polit, D. F., & Beck, C. T. (2004). *Nursing research: Principles and methods* (7th ed.). Philadelphia, PA: Lippincott, Williams, & Wilkins.
- Pontifical Council for Justice and Peace. (2005). *Compendium of the social doctrine of the Church*. Vatican City: Libreria Editrice Vaticana.
- Pontifical International Marian Academy (2007). *The Mother of the Lord: Memory, presence, hope*. (T. A. Thompson, Trans.). Staten Island, N.Y: Society of St. Paul.

## THE CATHOLIC MARIAN SPIRITUALITY (CMS) SCALE

Pope Benedict XVI (2009). *Charity in truth (Caritas in veritate)*. Vatican City: Libreria

Editrice Vaticana.

Pope Francis. (2016). *The name of God is mercy*. London, UK: Pan MacMillan.

Pope Paul VI. (1964). *Lumen Gentium (Dogmatic constitution on the church)*. Vatican City:

Libreria Editrice Vaticana.

Pope Paul VI. (1971). *A call to action (Octogesima Adveniens)*. Vatican City: Libreria

Editrice Vaticana.

Pope Paul VI. (1974). *Marialis Cultus (Apostolic exhortation for the right ordering and*

*development of devotion to the Blessed Virgin Mary)*. Vatican City: Libreria Editrice

Vaticana.

Pope Saint John Paul II. (1980). *Rich in mercy (Dives in Misericordia)*. Vatican City:

Libreria Editrice Vaticana.

Pope Saint John Paul II. (1981). *On Human work (Laborem Exercens)*. Vatican City: Libreria

Editrice Vaticana.

Pope Saint John Paul II. (1987). *Redemptoris Mater (On the Blessed Virgin Mary in the life*

*of the pilgrim church)*. Vatican City: Libreria Editrice Vaticana.

Pope Saint John Paul II. (1997, May7). *Catechesis of May 7, 1997*. Vatican City: Libreria

Editrice Vaticana.

Pope Saint John Paul II. (2001). *At the beginning of the new millennium (Novo Millennio*

*Ineunte)*. Vatican City: Libreria Editrice Vaticana.

Prest, L. A., & Keller, J. F. (1993). Spirituality and family therapy: Spiritual beliefs, myths, and metaphors. *Journal of Marital and Family Therapy, 19*, 137-148. .

doi:10.1111/j.1752-0606.1993.tb00973.x

Rahula,W. (1959). *What the Buddha taught*. New York, NY: Grove Press.

## THE CATHOLIC MARIAN SPIRITUALITY (CMS) SCALE

- Renfrew, C., & Morley, I. (Eds.). (2009). *Becoming human: Innovation in prehistoric material and spiritual culture*. New York, NY: Cambridge University Press.
- Richer, E. (2007). Marian devotion, the rosary, and the scapular. In M. Miravalle (Ed.), *Mariology: A guide for priests, deacons, seminarians, and consecrated persons* (pp.667-720). Goleta, CA: Seat of Wisdom Books.
- Richins, M.L., & Dawson, S. (1992). A consumer values orientation for materialism and its measurement: Scale development and validation. *Journal of Consumer Research*, 19, 303. doi: [10.1086/209304](https://doi.org/10.1086/209304)
- Robinson, T. L., & Watt, S.K. (2001). Where no one goes begging: Gender, sexuality, and religious diversity. In D. Locke, J. Myers, and E. Herr (Eds.), *Handbook of counselling* (pp.589-599). Thousand Oaks, CA: Sage Publications.
- Rossetti, S. (2011). *Why priests are happy? A study of the psychological and spiritual health of priests*. Notre Dame, IN: Ave Maria Press.
- Roy, N.J. (2007). Mary and the liturgical year. In M. Miravalle (Ed.), *Mariology: A guide for priests, deacons, seminarians, and consecrated persons* (pp.607-664). Goleta, CA: Seat of Wisdom Books.
- Rowley, G. L. (1976). The reliability of observational measures. *American Educational Research Journal*, 13, 51-59. doi:10.2307/1162553
- Rusu, P. P. & Turliuc, M. (2011). Ways of approaching religiosity in psychological research. *The Journal of International Social Research*, 4, 352- 362.
- Sacks, J. (2011). *The great partnership: Science, religion, and the search for meaning*. London, UK: Hodder & Stoughton.
- Schmidtke, S. (2016). *Oxford handbook of Islamic theology*. Oxford, UK: Oxford University Press.

## THE CATHOLIC MARIAN SPIRITUALITY (CMS) SCALE

- Schneiders, S. M. (1986). Theology and spirituality: Strangers, rivals, or partners? *Horizons*, *13*, 253- 274
- Schneiders, S. M. (2005). Christian spirituality: Definition, methods and types. In P. Sheldrake (Ed.), *The new SCM dictionary of Christian spirituality*. London,UK: SCM.
- Schwartz, G. E., & Russek, L. G. (1999) Registration of actual and intended eye gaze: Correlation with spiritual beliefs and experiences. *Journal of Scientific Exploration*, *13*, 213-30.
- Shafranske, E. P., & Gorsuch, R. L. (1984). Factors associated with the perception of spirituality in psychotherapy. *Journal of Transpersonal Psychology*, *16*, 231-241.
- Sisk, D., & Torrance, E. P. (2001). *Spiritual intelligence: Developing a higher consciousness*. New York, NY: Creative Education Foundation.
- Skrzypińska, K., & Chudzik, I. (2012). Intricacies of the calling: Spirituality of Polish nuns. *Women's Studies International Forum*, *35*, 314-322. doi:10.1016/j.wsif.2012.05.005
- Smith, H. & Novak, P. (2005). *Buddhism: A concise introduction*. New York, NY: HarperCollins Publishers.
- Snowdon, D. (2002). *Aging with grace: What the nun study teaches us about leading longer, healthier, and more meaningful lives*. New York, NY: Bantam Books.
- Spilka, B., Hood, R.W., Hunsberger, B., & Gorsuch, R. (2003). *The psychology of religion: An empirical approach*, (3rd ed.). New York, NY: Guilford Press.
- Stacpoole, A. (1989). Mary in ecumenical dialogue. In J. Hyland, (Ed.), *Mary in the church*, (pp.57-78). Dublin, Ireland: The Marist Brothers.
- Staniloae, D. (2002). *Orthodox spirituality: A Practical guide for the faithful and a definitive manual for the scholar*. South Canaan, PA: St Tikon's Seminary Press.



## THE CATHOLIC MARIAN SPIRITUALITY (CMS) SCALE

- Sumedho, A. (1995). *The mind and the way: Buddhist reflections on life*. Boston, MA: Wisdom Publications.
- Sussman, S., Nezami, E., & Mishra, S. (1997). On operationalizing spiritual experience for health promotion research and practice. *Alternative Therapies in Clinical Practice, 4*, 120-125.
- Suzuki, S. (1970). *Zen mind, beginner's mind*. Boston, MA: Weatherhill.
- Swami Kriyananda. (1998). *The Hindu way of awakening*. Nevada City, CA: Crystal Clarity Publishers.
- Swami Nikhilananda. (1964). *The Upanishads*. New York, NY: Harper Torch Books.
- Swami Vivekananda. (1980). *Raja yoga*. New York, NY: Ramakrishna Vivekananda Center.
- Tanyi, R. A. (2002). Towards clarification of the meaning of spirituality. *Advanced Nursing, 39*, 500-509. doi:10.1046/j.1365-2648.2002.02315.x
- Teddie, C., & Tashakkori, A. (2009). *Foundations of mixed methods research: Integrating quantitative and qualitative approaches in the social and behavioural sciences*. Thousand Oaks, CA: Sage Publications.
- Thalbourne, M. A. (1991). The psychology of mystical experience. *Exceptional Human Experience, 9*, 168-186.
- Thompson, B. (2003). Understanding reliability and coefficient alpha, really. In B. Thompson (Ed.), *Score Reliability: Contemporary thinking on reliability issues* (pp. 3–23). Thousand Oaks, CA: Sage Publications.
- Thoresen, C. E. (1999). Spirituality and health: Is there a relationship? *Journal of Health Psychology, 4*, 291-300. doi:10.1177/135910539900400314
- Thorndike, R. (1997). *Measurement and evaluation in psychology and education* (6th ed.). Upper Saddle River, NJ: Prentice Hall.

## THE CATHOLIC MARIAN SPIRITUALITY (CMS) SCALE

- Thurson, B. (2005). *The New Testament in Christian spirituality*. In A. Holder (Ed.), *The Blackwell companion to Christian spirituality*. Oxford, UK: Blackwell Publishing.
- Trochim, W. M. K. (2001). *The research methods knowledge base*. Cincinnati, OH: Atomic Dog Publishing.
- Turocy, P. S. (2002). Survey research in athletic training: The scientific method of development and implementation. *Journal of Athletic Training*, 37, S174-S179.
- Underwood, L. G., & Teresi, J. A. (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, 22–33. doi:10.1207/S15324796ABM2401\_04
- Vaillant, G. E. (2008) *Spiritual evolution: A scientific defense of faith*. New York, NY: Doubleday Broadway.
- Van der Veer, Peter (2009). Spirituality in modern society. *Social Research: An International Quarterly*, 76, 1097–1120.
- Van Kaam, A. (1983). Disposition for formation in childhood. *Studies in Formative Spirituality*, 4, 369-382.
- Van Prooijen, J.-W., & van der Kloot, W. A. (2001). Confirmatory analysis of exploratively obtained factor structure. *Educational and Psychological Measurement*, 61, 777–792. doi: [10.1177/00131640121971518](https://doi.org/10.1177/00131640121971518)
- Varenne, J. (1977). *Yoga and the Hindu tradition* (D. Coltman, Trans.). Chicago, IL: University of Chicago Press.
- Vaughan, F. (1991). Spiritual issues in psychotherapy. *Journal of Transpersonal Psychology*, 23, 105-119.

## THE CATHOLIC MARIAN SPIRITUALITY (CMS) SCALE

Vaughan, F., Wittine, B., & Walsh, R. (1996). Transpersonal psychology and the religious person. In E. D. Shafranske (Ed.), *Religion and the clinical practice of psychology* (pp. 483-510). Washington, DC: American Psychological Association.

Vella-Brodrick, D., & Allen, F. (1995). Development and psychometric validation of the Mental, Physical, and Spiritual Well-Being Scale. *Psychological Reports, 77*, 659–674. doi:10.2466/pr0.1995.77.2.659

Verhagen, P. J., Van Praag, H. M., Lopez-Ibor, J. J., Cox, J., & Moussaoui, D. (2010). *Religion and psychiatry: Beyond boundaries*. Hoboken, NJ: Wiley – Blackwell.

Walach, H. (2014). *Secular spirituality: The next step towards enlightenment*. Cham, Switzerland: Springer International Publishing AG.

Walker, J.K. (2007). *The concise guide to today's religions and spirituality*. Eugene, OR: Harvest House Publishers.

Waltz, C. F., Strickand, O. L., & Lenz, E. R. (2005). *Measurement in nursing and health research* (3rd ed.). New York, NY: Springer.

Wilkinson, T. (2007). *The lost art of being happy; spirituality for sceptics*. Forres, UK: Findhorn Press

Wuthnow, R. (1998). *After heaven: Spirituality in America since the 1950s*. Berkley, CA: University of California Press.

Yust, K. M., Johnson, A. N., Sasso, S. E., & Roehlkepartain, E. C. (2006). *Nurturing child and adolescent spirituality: Perspectives from the world's religious traditions*. New York, NY: Rowman & Littlefield Publishers, Inc.

Yusuf Ali, A. (Ed.) (2005). *The Holy Qur'an: Text, Translation and Commentary*. UK: Tahrike Tarsile Qur'an, Inc.

## THE CATHOLIC MARIAN SPIRITUALITY (CMS) SCALE

- Zinnbauer, B. J., & Pargament, K. I. (2005). Religiousness and spirituality. In R.F. Paloutzian & C. L. Park (Eds.), *Handbook of the Psychology of Religion and Spirituality* (pp. 21-42). New York, NY: Guilford Press.
- Zinnbauer, B. J., Pargament, K. I., Cole, B. C., Rye, M., Butter, E. M., Belavich, T. G. (1997). Religion and spirituality: Unfuzzifying the fuzzy. *Journal for the Scientific Study of Religion*, 36, 549. doi:10.2307/1387689
- Zohar, D., & Marshall, I. (2000). *SQ- Spiritual Intelligence: The ultimate intelligence*. London: Bloomsbury.
- Zwingmann, C., Klein, C., & Büssing, A. (2011). Measuring religiosity/spirituality: Theoretical differentiations and categorization of instruments. *Religions*, 2, 345-357. doi:10.3390/rel2030345

**Appendix 1: Participant Information Letter, Interviewees for Pilot Study**



**AUSTRALIAN CATHOLIC UNIVERSITY**

**SCHOOL OF PSYCHOLOGY**

**Australian Catholic University Limited, ABN 15 050 192 660**

Melbourne Campus: 115 Victoria Parade Locked Bag 4115 Victoria 3065

Tel 03 9953 3000

[www.acu.edu.au](http://www.acu.edu.au)

---

**PARTICIPANT INFORMATION LETTER**

**(For Interviewees for the Pilot Study)**

**PROJECT TITLE:** The Catholic Marian Spirituality Scale: Conceptualization and Measurement

**PRINCIPAL INVESTIGATOR:** Dr. Eric Stephen Marx

**STUDENT RESEARCHER:** Fr. John Vayalilkarottu, OFMConv.

**STUDENT'S DEGREE:** Master of Philosophy (MPhil.)

Dear Participant,

You are invited to participate in the research project described below.

***What is the project about?***

The research project involves developing a valid and reliable measurement of the Catholic Marian Spirituality. This measurement or scale currently does not exist. As a Catholic believer this project is important to you and to our Church because your participation will

## THE CATHOLIC MARIAN SPIRITUALITY (CMS) SCALE

enable the researcher to collect the necessary data for the development of a scale to be used in the Social and Health Sciences.

### ***Who is undertaking the project?***

This project is being conducted by Fr. John Vayalilkarottu to form the basis of his degree for the Master of Philosophy at Australian Catholic University under the supervision of Dr. Eric Stephen Marx.

### ***Are there any risks associated with participating in this project?***

There are no foreseeable risks involved in participating in this project other than the time which you will spend to complete a questionnaire, or in making yourself available for an interview. Should you find any risks please do not hesitate to contact either the principal investigator or the Chair of the Human Research Ethics Committee at ACU.

### ***What will I be asked to do?***

Your task will be to participate in an interview (which will be audio recorded using a digital recorder). You will be asked to express your opinion on the following questions:

Is there any difficulty in understanding these questions?

What do you think about these questions? Are they related to your understanding and experience of the Catholic Marian Spirituality?

What is your opinion regarding the clarity of the wording of these questions?

Do you have any suggestions on anything you think important concerning Catholic Marian Spirituality?

### ***How much time will the project take?***

Each participant will be required for approximately twenty minutes.

### ***What are the benefits of the research project?***

The development of an appropriate measuring instrument for Catholic Marian Spirituality can potentially enhance research on the link between religion, spirituality and health/well-being. It can be used to examine whether Marian Spirituality correlates with subjective well-being, quality of life and different aspects of health and well-being. Through systematic research this project can provide the connection between faith and practice or religion and spirituality from a Catholic Christian perspective.

### ***Can I withdraw from the study?***

Participation in this study is completely voluntary. You are not under any obligation to participate. If you agree to participate, you can withdraw from the study at any time without any adverse consequences.

***Will anyone else know the results of the project?***

The information will be reported in the form of a thesis, and potentially published in a scientific journal. Results are aggregated so no identifying information is used.

Information obtained during the course of the study (both identifiable and non-identifiable) will be stored in locked cabinets with the student researcher. After the study it will be kept in locked cabinets in Room FC 12B of ACU Brisbane Campus. Access to this information will only be given to researchers involved in this project. After six years, the information will be deleted from the computer/external USB Drive and paper copies shredded.

In the event that this study is published, all information provided about individuals will be anonymous and unidentifiable.

***Will I be able to find out the results of the project?***

Group data will be made available upon request, via a means preferred by the participant.

***Who do I contact if I have questions about the project?***

The participant can contact the researchers to ask questions about the project.

***What if I have a complaint or any concerns?***

The study has been approved by the Human Research Ethics Committee at Australian Catholic University (approval number 2012 xxxx). If you have any complaints or concerns about the conduct of the project, you may write to the Chair of the Human Research Ethics Committee care of the Office of the Deputy Vice Chancellor (Research).

Chair, HREC  
c/o Office of the Deputy Vice Chancellor (Research)  
Australian Catholic University  
Melbourne Campus  
Locked Bag 4115  
FITZROY, VIC, 3065  
Ph: 03 9953 3150 | Fax: 03 9953 3315  
Email: [res.ethics@acu.edu.au](mailto:res.ethics@acu.edu.au)

Any complaint or concern will be treated in confidence and fully investigated. You will be informed of the outcome.

***I want to participate! How do I sign up?***

If you are willing to participate please contact the student researcher by responding to the email address provided in the invitation for research participation. You will be asked to provide your consent either electronically or by signing both copies of the consent forms.

THE CATHOLIC MARIAN SPIRITUALITY (CMS) SCALE

Thanking you in anticipation for your willingness to participate in this project.

Yours sincerely,

Fr. John Vaylilkarottu, OFMConv.

**Student Researcher**

[frjohnvofmconv@gmail.com](mailto:frjohnvofmconv@gmail.com)

Dr. Eric Stephen Marx

**Principal Supervisor**

[eric.marx@acu.edu.au](mailto:eric.marx@acu.edu.au)



**Appendix 2: Review Form for CMS Experts**



**AUSTRALIAN CATHOLIC UNIVERSITY  
SCHOOL OF PSYCHOLOGY**

**Australian Catholic University Limited, ABN 15 050 192 660**

Melbourne Campus: 115 Victoria Parade Locked Bag 4115 Victoria 3065  
Tel 03 9953 3000

[www.acu.edu.au](http://www.acu.edu.au)

---

**REVIEW FORM FOR EXPERTS IN DIFFERENT DIMENSIONS OF CATHOLIC  
MARIAN SPIRITUALITY**

**PROJECT TITLE:** The Catholic Marian Spirituality Scale: Conceptualization And  
Measurement **PRINCIPAL INVESTIGATOR:** Dr. Eric Stephen Marx

**STUDENT RESEARCHER:** Fr. John Vayalilkarottu, OFMConv.

**STUDENT'S DEGREE:** Master of Philosophy (MPhil.)

Dear Dr.....

Thank you for your participation to review the initial draft of the questionnaire on Catholic  
Marian Spirituality.

Marian devotion and spirituality are integral aspects of both the Catholic faith and Gospel  
spirituality. The concept of the Catholic Marian Spirituality (CMS) encompasses different

## THE CATHOLIC MARIAN SPIRITUALITY (CMS) SCALE

domains. Therefore, this questionnaire adopts the following working definition of Catholic Marian Spirituality:

For the purpose of this study, it is operationally defined as a set of beliefs and practices to help the follower to become closely connected to Jesus Christ through imitating the virtues of the Blessed Virgin Mary, the Mother of God and of humanity. Based on the Sacred Scriptures and the Sacred Tradition of the Church, it invites the believer: 1) to deepen one's relationship with Christ; 2) to be intimately incorporated into the Church; 3) to remember and to relive it by celebrating it in the liturgy and in the other prayers of the Church; and 4) to actively engage in the works of mercy and compassionate love.

The Survey Questionnaire will be administered among the Church- attending Catholic lay people beyond the age of 18. The participants will be asked to express their agreement or disagreement on an 8 point Likert Scale.

Please evaluate to what extent all the items in the survey questionnaire are related to the core elements of Catholic Marian Spirituality (both faith and practice) from Biblical, Christocentric, Ecclesial and Liturgical dimensions. Please review the items using a four point Likert Scale: 1=not relevant, 2=somewhat relevant, 3=relevant, 4=very relevant.

Please circle the applicable numbers below.

		<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>
		<b>Not relevant</b>	<b>Somewhat relevant</b>	<b>Relevant</b>	<b>Very relevant</b>
1.	By her constant meditation on the Sacred Scriptures Mary viewed her life in relation to them.	1	2	3	4
2.	When Elizabeth was in need, Mary went to offer her help.	1	2	3	4
3.	I try to imitate the theological virtues (faith, hope and Christian love) of Mary in my daily life.	1	2	3	4
4.	Mary was always filled with the Holy Spirit.	1	2	3	4
5.	The Blessed Virgin Mary is a model of living the teachings of the Bible.	1	2	3	4
6.	I try to look at all the events of my life through the eyes of Virgin Mary- through a Marian lens.	1	2	3	4
7.	Full of faith and trust in God, Mary	1	2	3	4

THE CATHOLIC MARIAN SPIRITUALITY (CMS) SCALE

		<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>
		<b>Not relevant</b>	<b>Somewhat relevant</b>	<b>Relevant</b>	<b>Very relevant</b>
	accepted God's call to be the mother of his Son Jesus Christ.				
8.	Mary stood at the foot of the cross participating in the agony of her Son for the redemption of the world.	1	2	3	4
9	On the Cross Jesus entrusted Mary to his beloved disciple who took her in to his own home.	1	2	3	4
10.	Jesus performed his first miracle at the wedding of Cana by the intercession of Mary.	1	2	3	4
11.	The Blessed Virgin Mary leads me to her divine son with her maternal counsel, "Do whatever he tells you."	1	2	3	4
12.	Mary is the perfect model of the believer in Jesus Christ.	1	2	3	4
13.	Mary helps me to grow daily into the likeness of Jesus.	1	2	3	4
14.	I honour Mary as the Mother of God.	1	2	3	4
15.	Like Mary who rejoiced in her Saviour I try to constantly remind myself that my ultimate happiness is in God Almighty.	1	2	3	4
16.	Mary recognizes that it is the Almighty God who has done great things for her.	1	2	3	4
17.	The motto of all my Marian spirituality is through the Immaculate Heart of Mary to the Sacred Heart of Jesus.	1	2	3	4
18.	Devotion to Mary is the easiest way to obtain the closest relationship to Jesus Christ.	1	2	3	4
19.	Virgin Mary's Assumption into heaven provides me with the hope that I can be united with God eternally in heaven.	1	2	3	4
20.	The history of the Church begins with the conception of Jesus in the womb of the Virgin Mary.	1	2	3	4
21.	Mary, the mother of Jesus led the early	1	2	3	4

THE CATHOLIC MARIAN SPIRITUALITY (CMS) SCALE

	<b>1</b> <b>Not</b> <b>relevant</b>	<b>2</b> <b>Somewhat</b> <b>relevant</b>	<b>3</b> <b>Relevant</b>	<b>4</b> <b>Very</b> <b>relevant</b>
22.	1	2	3	4
23.	1	2	3	4
24.	1	2	3	4
25.	1	2	3	4
26.	1	2	3	4
27.	1	2	3	4
28.	1	2	3	4
29.	1	2	3	4
30.	1	2	3	4
31.	1	2	3	4
32.	1	2	3	4

THE CATHOLIC MARIAN SPIRITUALITY (CMS) SCALE

		<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>
		<b>Not relevant</b>	<b>Somewhat relevant</b>	<b>Relevant</b>	<b>Very relevant</b>
33.	In my struggles against the powers of darkness or evil (selfishness, greed, hatred, etc.) I seek the intercession of Mary as the Woman in perpetual enmity with Satan.	1	2	3	4
34.	Veneration of the Mother of God leads me to the adoration of her Son, Jesus.	1	2	3	4
35.	I pray the Rosary daily.	1	2	3	4

- I. Please feel free to write below any comments concerning how you found this questionnaire and suggestions to improve it.
  
- II. Please point out any confusing items and suggest any alternative wording.
  
- III. Please evaluate the clarity and the conciseness of the items.
  
- IV. Are there any aspects of Marian spirituality that you feel have not been included in the items? If so, please suggest here the wording for a new item or items

**Appendix 3: Review Form for Experts in Scale Development**



---

**AUSTRALIAN CATHOLIC UNIVERSITY  
SCHOOL OF PSYCHOLOGY**

**Australian Catholic University Limited, ABN 15 050 192 660**

Melbourne Campus: 115 Victoria Parade Locked Bag 4115 Victoria 3065

Tel 03 9953 3000

[www.acu.edu.au](http://www.acu.edu.au)

**REVIEW FORM FOR EXPERTS IN SCALE DEVELOPMENT**

**PROJECT TITLE:** The Catholic Marian Spirituality Scale: Conceptualization, Measurement And Empirical Validation

**PRINCIPAL INVESTIGATOR:** Dr. Eric Stephen Marx

**STUDENT RESEARCHER:** Fr. John Vayalilkarottu, OFMConv.

**STUDENT'S DEGREE:** Master of Philosophy (MPhil.)

## THE CATHOLIC MARIAN SPIRITUALITY (CMS) SCALE

Dear Dr. Sabine,

Thank you for your participation in reviewing the initial draft of the questionnaire on Catholic Marian Spirituality. Scale development literature has highlighted the vital importance of carefully following all the steps involved in the development and validation of an appropriate instrument for measuring constructs. It maintains that only a thoughtfully conceived and well-designed survey instrument will enable the researchers to provide sound recommendations based on an accurate measurement and interpretation of the variables. Therefore, your contribution to this research is highly pertinent.

Marian devotion and spirituality are integral aspects of both the Catholic faith and Gospel spirituality. The concept of the Catholic Marian Spirituality (CMS) encompasses different domains. Therefore, this questionnaire adopts the following working definition of Catholic Marian Spirituality:

**For the purpose of this study, it is operationally defined as a set of beliefs and practices to help the follower to become closely connected to Jesus Christ through imitating the virtues of the Blessed Virgin Mary, the Mother of God and of humanity. Based on the Sacred Scriptures and the Sacred Tradition of the Church, it invites the believer: 1) to deepen one's relationship with Christ; 2) to be intimately incorporated into the Church; 3) to remember and to relive it by celebrating it in the liturgy and in the other prayers of the Church; and 4) to actively engage in the works of mercy and compassionate love.**

Please evaluate the items, taking some of the following aspects into consideration:

- 1. Any difficulties or ambiguities in the survey instrument which can lead to measurement errors;**
- 2. Any problems in the linguistic structures in the survey questions;**
- 3. Any questions which are prone to item non-response;**
- 4. Potential comprehension problems with any question;**
- 5. Any questions which may result in data quality problems.**

THE CATHOLIC MARIAN SPIRITUALITY (CMS) SCALE

		<b>Strongly Disagree 1</b>	<b>Disagree 2</b>	<b>Slightly Disagree 3</b>	<b>Neither Agree nor Disagree 4</b>	<b>Slightly Agree 5</b>	<b>Agree 6</b>	<b>Strongly Agree 7</b>
1.	By her constant meditation on the Sacred Scriptures Mary viewed her life in relation to them.							
2.	When Elizabeth was in need, Mary went to offer her help.							
3.	I try to imitate the theological virtues (faith, hope and Christian love) of Mary in my daily life.							
4.	Mary was always filled with the Holy Spirit.							
5.	The Blessed Virgin Mary is a model of living the teachings of the Bible.							
6.	I try to look at all the events of my life through the eyes of Virgin Mary- through a Marian lens.							
7.	Full of faith and trust in God, Mary accepted God's call to be the mother of his							



THE CATHOLIC MARIAN SPIRITUALITY (CMS) SCALE

		<b>Strongly Disagree 1</b>	<b>Disagree 2</b>	<b>Slightly Disagree 3</b>	<b>Neither Agree nor Disagree 4</b>	<b>Slightly Agree 5</b>	<b>Agree 6</b>	<b>Strongly Agree 7</b>
	Son Jesus Christ.							
8.	Mary stood at the foot of the cross participating in the agony of her Son for the redemption of the world.							
9.	On the Cross Jesus entrusted Mary to his beloved disciple who took her in to his own home.							
10.	Jesus performed his first miracle at the wedding of Cana by the intercession of Mary.							
11.	The Blessed Virgin Mary leads me to her divine son with her maternal counsel, "Do whatever he tells you."							
12.	Mary is the perfect model of the believer in Jesus Christ.							
13.	Mary helps me to grow daily into the likeness of Jesus.							

THE CATHOLIC MARIAN SPIRITUALITY (CMS) SCALE

		<b>Strongly Disagree 1</b>	<b>Disagree 2</b>	<b>Slightly Disagree 3</b>	<b>Neither Agree nor Disagree 4</b>	<b>Slightly Agree 5</b>	<b>Agree 6</b>	<b>Strongly Agree 7</b>
14.	I honour Mary as the Mother of God.							
15.	Like Mary who rejoiced in her Saviour I try to constantly remind myself that my ultimate happiness is in God Almighty.							
16.	Mary recognizes that it is the Almighty God who has done great things for her.							
17.	The motto of all my Marian spirituality is through the Immaculate Heart of Mary to the Sacred Heart of Jesus.							
18.	Devotion to Mary is the easiest way to obtain the closest relationship to Jesus Christ.							
19.	Virgin Mary's Assumption into heaven provides me with the hope that I can be united with God							

THE CATHOLIC MARIAN SPIRITUALITY (CMS) SCALE

		<b>Strongly Disagree 1</b>	<b>Disagree 2</b>	<b>Slightly Disagree 3</b>	<b>Neither Agree nor Disagree 4</b>	<b>Slightly Agree 5</b>	<b>Agree 6</b>	<b>Strongly Agree 7</b>
	eternally in heaven.							
20.	The history of the Church begins with the conception of Jesus in the womb of the Virgin Mary.							
21.	Mary, the mother of Jesus led the early Church steadfastly in prayer for the coming of the Holy Spirit.							
22.	My spiritual union with Mary helps me to bring Christ's love to the less privileged and those in need (like visiting the sick, volunteering my time and sharing my resources).							
23.	The more I love Mary, the more I love the Church.							
24.	I try to imitate the Immaculate Mother by keeping my mind and heart clean of mental and							

THE CATHOLIC MARIAN SPIRITUALITY (CMS) SCALE

		<b>Strongly Disagree 1</b>	<b>Disagree 2</b>	<b>Slightly Disagree 3</b>	<b>Neither Agree nor Disagree 4</b>	<b>Slightly Agree 5</b>	<b>Agree 6</b>	<b>Strongly Agree 7</b>
	moral corruption.							
25.	Like the beloved disciple of Jesus, the Apostle John, I have received the Blessed Mary into my life as my spiritual mother.							
26.	Mary as the Woman of the Eucharist leads me to the sacraments of the Church.							
27.	My gratitude to Almighty God is so immense for giving me Blessed Mary a mother filled with all the Gospel values.							
28.	My participation in the celebration of the prayers of the Church in honour of Mary (e.g., feasts, novenas, rosary ) deepens my understanding of her place in the redemptive mission of Jesus.							
29.	I pray through Holy Mary's							

THE CATHOLIC MARIAN SPIRITUALITY (CMS) SCALE

		<b>Strongly Disagree 1</b>	<b>Disagree 2</b>	<b>Slightly Disagree 3</b>	<b>Neither Agree nor Disagree 4</b>	<b>Slightly Agree 5</b>	<b>Agree 6</b>	<b>Strongly Agree 7</b>
	intercession not to lose heart in the trials and disappointments of my life.							
30.	I seek Mary's intercession in all my temporal and spiritual needs.							
31.	I pray to Jesus through Mary for the gift of a deeper understanding of the Word of God in my life.							
32.	I express highest veneration to Mary as my spiritual mother through the prayers of the Church.							
33.	In my struggles against the powers of darkness or evil (selfishness, greed, hatred, etc.) I seek the intercession of Mary as the Woman in perpetual enmity with Satan.							

THE CATHOLIC MARIAN SPIRITUALITY (CMS) SCALE

		<b>Strongly Disagree 1</b>	<b>Disagree 2</b>	<b>Slightly Disagree 3</b>	<b>Neither Agree nor Disagree 4</b>	<b>Slightly Agree 5</b>	<b>Agree 6</b>	<b>Strongly Agree 7</b>
34.	Veneration of the Mother of God leads me to the adoration of her Son, Jesus.							
35.	I pray the Rosary daily.							

**Please write your comments below:**

#### **Appendix 4: Review Responses from Experts**

**Comments by Dr Austin Cooper, (Professor of Mariology and Church History, MCD University of Divinity, Catholic Theological College, Melbourne).**

Of the 35 items to be reviewed, Professor Cooper made the following comments concerning the draft survey questionnaire developed mainly from the literature on CMS:

Not Relevant.

Nil

Somewhat Relevant.

Nil

Relevant.

Q.6 (Look at all the events through a Marian lens); Q.9 (On the Cross Jesus entrusted Mary to His beloved disciple...); Q.17 (The motto of my Marian Spirituality is through...); Q.20 (The history of the Church begins); Q.26 (Woman of the Eucharist leads me to the Sacrament...); Q.27 (My gratitude to Almighty God is so immense...; Q.31 (I pray through Mary for a deeper understanding of the Word of God); Q.33 (In my struggles against the powers of darkness...).

Very Relevant.

All the rest of the questions were reviewed as very relevant.

To the following questions, Professor Cooper responded:

1. Please feel free to write below any comments concerning how you found this questionnaire and suggestions to improve it.

I could easily have filled in each point under the 'Very Relevant' box, but sought to see some items as slightly less important than others.

One begins by receiving the Word of God. For centuries this Word came largely through – the visual. I find that throughout the history of Christendom images of Mary have varied according to the socio-political context, but each of these images, leaves us with a specific attitude towards Mary. I think, therefore, that some consideration of Mary in art needs to be part of your research.

And one could expand this to think of Mary in literature.

## THE CATHOLIC MARIAN SPIRITUALITY (CMS) SCALE

And also those deeply religious experiences where people have a ‘vision’ of Mary – however these might be understood. Even a writer like Julian of Norwich has some very perceptive ‘shewings’ of Mary. How do these perform a role in the Marian experience of Christians?

2. Please point out any confusing items and suggest any alternative wording.

Professor Cooper did not make any comment.

3. Please evaluate the clarity and the conciseness of the items.

Very clear indeed. Well done!

4. Are there any aspects of Marian Spirituality that you feel have not been included in the items? If so, please suggest here the wording for a new item or items.

See my comments above, especially re art.

### **Comments by Dr Joseph Pamplany, (Professor of Sacred Scriptures, St Joseph’s Pontifical Faculty, Kerala, India).**

Of all the 35 items that were asked to be reviewed, Professor Pamplany made the following comments:

Somewhat relevant.

Q.5 (Mary is a model of living the teachings of the Bible); Q.8 (Mary stood at the foot of the Cross...); Q.13 (Mary helps me to grow daily...); Q.17 (The motto of my Marian Spirituality is through...); (Look at all the events through a Marian lens); Q.20 (The history of the Church begins); Q.22 (My spiritual union with Mary helps me...); Q.24 (I try to imitate the Immaculate Mother by keeping my mind...); Q.26 (Woman of the Eucharist leads me to the Sacrament...); Q.31 (I pray through Mary for a deeper understanding of the Word of God).

Relevant.

Q.1 (By her constant meditation on the Sacred Scriptures...); Q.2 (When Elizabeth was in need...); Q.4. (Mary was always filled...); Q.6 (Look at all the events through a Marian lens); Q.7 (Full of faith and trust in God...); Q.12 (Mary is the perfect model of the believer); Q.18 (Devotion to Mary is the easiest way...); Q.19 (The Virgin Mary’s Assumption into Heaven); Q.21 (Mary, the Mother of Jesus, lead the early Church...); Q.23 (The more I love Mary...); Q.25 (Like the beloved disciple of Jesus...); Q.27 (My gratitude to Almighty God is so immense...); Q.28 (My participation in the celebration of the prayers of the Church...); Q.32 (I express the highest veneration of Mary...); Q.33 (In my struggles against the powers of evil...); Q.34 (Veneration of the Mother of God...); Q.35 (I pray the Rosary daily...).

Very Relevant.



## THE CATHOLIC MARIAN SPIRITUALITY (CMS) SCALE

Q.3 (I try to imitate the theological virtues of Mary...); Q.9 (On the Cross Jesus entrusted Mary to His beloved disciple...); Q.10. (Jesus performed His first miracle); Q.11 (The Blessed Virgin Mary leads me to her Divine Son...); Q.14 (I honour Mary as the Mother of God); Q.15( Like Mary who rejoiced...); Q.16 (Mary recognises that it is the Almighty...); Q.29 (I pray through holy Mary's intercession not to lose heart...); Q.30 (I seek Mary's intercession in all my temporal...)

To the following questions, Professor Pamplany responded:

1. Please feel free to write below any comments concerning how you found this questionnaire and suggestions to improve it.

I went through the questionnaire. It seems to be sound, meaningful and comprehensible. The questionnaire is well prepared and it is fit for serving the desired goals. Having integrated the biblical, theological, liturgical and popular dimensions of Marian devotion, the questionnaire seems to be comprehensive. However, additions of the items like pilgrimage to Marian shrines and personal pious practices such as wearing of the Marian medals etc. would enrich the integrity of the questionnaire.

2. Please point out any confusing items and suggest any alternative wording.

There is no confusing element in the questionnaire that would prevent comprehensibility. However, the frequent switching between the first person statements (for example, I pray..., I seek...I try..... ) and the third person statements are preventing the flow to some extent.

3. Please evaluate the clarity and the conciseness of the items.

The questions are precise and matter of fact. Any ordinary lay person can read and understand the items.

4. Are there any aspects of Marian Spirituality that you feel have not been included in the items? If so, please suggest here the wording for a new item or items.

No comments were given.

**Comments by Dr Sebastian Panjikaran, (Professor of Christology, St Joseph's Pontifical Faculty, Kerala, India).**

Professor Panjikaran did not use the 4 point Likert Scale. Instead, he made the following comments:

1. Please feel free to write below any comments concerning how you found this questionnaire and suggestions to improve it.

You have covered all aspects of the project. Congratulations.

## THE CATHOLIC MARIAN SPIRITUALITY (CMS) SCALE

As an observation: The fourth part of the purpose of the study (engage in the works of mercy and compassionate love) is not dealt with as a separate section. If you find it useful you can separate it and add few more questions in this regard.

2. Please point out any confusing items and suggest any alternative wording.

In the first question instead of the sacred scriptures Word of God may be more apt.

3. Please evaluate the clarity and the conciseness of the items.

No comments were given.

4. Are there any aspects of Marian Spirituality that you feel have not been included in the items? If so, please suggest here the wording for a new item or items.

The implications of important Marian Dogmas in the life of the faithful is not discussed.

**Comments by Dr George Karakunnel, (Professor of Ecclesiology, St Joseph's Pontifical Faculty, Kerala, India).**

Professor Karakunnel did not use the 4 point Likert Scale. Instead, he made the following comments:

In general I found the questions very good. I found under Biblical Dimension Q. No 1 and I wonder whether the wording could be something different. My doubt is if Mary had the Scriptures as we have today. So why not say Mary meditated on God's Word...

Under Ecclesial Dimension I find No 20 a bit problematic. The history of the Church begins... Is this too much? That is my doubt. I find not much problem for the lay people with this questionnaire.

### **COMMENTS BY EXPERTS IN SCALE DEVELOPMENT**

In addition to the comments by Dr Eric Marx, the Principal Supervisor at the time, and A/Professor Cecilia Winkelman, the Associate Supervisor, the following experts were consulted.

**Comments by Dr. Ken Smith, Associate Professor, ACU, Melbourne.**

I suggest you look at the vocabulary of the questions ensuring all participants understand the wording.

## THE CATHOLIC MARIAN SPIRITUALITY (CMS) SCALE

Additionally, I believe some questions are asking historical/knowledge questions rather than spirituality. As such I recommend you have a Likert point where participants can tick they don't know the answer.

### **Comments by Associate Professor Sabine Hammond, Australian Psychological Society, Melbourne.**

1. Explain what Catholic Marian Spirituality is in the instruction to the participants.
2. The items are reasonably clear but will probably only be understood by people who are deeply religious and Catholic.
3. The questionnaire assumes a high level of spiritual awareness and reflection. Will your respondents be capable thereof?
4. Explain what is a Marian lens in Q.6.

**Appendix 5: Participant Information Letter, Pilot Study Survey participants**



**AUSTRALIAN CATHOLIC UNIVERSITY**

**SCHOOL OF PSYCHOLOGY**

**Australian Catholic University Limited, ABN 15 050 192 660**

Melbourne Campus: 115 Victoria Parade Locked Bag 4115 Victoria 3065

Tel 03 9953 3000

[www.acu.edu.au](http://www.acu.edu.au)

---

**PARTICIPANT INFORMATION LETTER**

**(For those completing the Survey Questionnaire for Pilot Study)**

**PROJECT TITLE:** The Catholic Marian Spirituality Scale: Conceptualization And Measurement

**PRINCIPAL INVESTIGATOR:** Dr. Eric Stephen Marx

**STUDENT RESEARCHER:** Fr. John Vayalilkarottu, OFMConv.

**STUDENT'S DEGREE:** Master of Philosophy (MPhil.)

Dear Participant,

You are invited to participate in the research project described below.

## THE CATHOLIC MARIAN SPIRITUALITY (CMS) SCALE

### ***What is the project about?***

The research project involves developing a valid and reliable measurement of the Catholic Marian Spirituality. This measurement or scale currently does not exist. As a Catholic believer this project is important to you and to our Church because your participation will enable the researcher to collect the necessary data for the development of a scale to be used in the Social and Health Sciences.

### ***Who is undertaking the project?***

This project is being conducted by Fr. John Vayalilkarottu to form the basis of his degree for the Master of Philosophy at Australian Catholic University under the supervision of Dr. Eric Stephen Marx.

### ***Are there any risks associated with participating in this project?***

There are no foreseeable risks involved in participating in this project other than the time which you will spend to complete a questionnaire, or in making yourself available for an interview. Should you find any risks please do not hesitate to contact either the principal investigator or the Chair of the Human Research Ethics Committee at ACU.

### ***What will I be asked to do?***

You will be required to complete either an anonymous online or a hard copy questionnaire consisting of forty items.

### ***How much time will the project take?***

You will be required to spend approximately twenty minutes.

### ***What are the benefits of the research project?***

The development of an appropriate measuring instrument for Catholic Marian Spirituality can potentially enhance research on the link between religion, spirituality and health/well-being. It can be used to examine whether Marian Spirituality correlates with subjective well-being, quality of life and different aspects of health and well-being. Through systematic research this project can provide the connection between faith and practice or religion and spirituality from a Catholic Christian perspective.

### ***Can I withdraw from the study?***

Participation in this study is completely voluntary. You are not under any obligation to participate. If you agree to participate, you can withdraw from the study at any time without any adverse consequences.

***Will anyone else know the results of the project?***

The information will be reported in the form of a thesis, and potentially published in a scientific journal. Results are aggregated so no identifying information is used.

Information obtained during the course of the study (both identifiable and non-identifiable) will be stored in locked cabinets with the student researcher. After the study it will be kept in locked cabinets in Room FC 12B of ACU Brisbane Campus. Access to this information will only be given to researchers involved in this project. After six years, the information will be deleted from the computer/external USB Drive and paper copies shredded.

In the event that this study is published, all information provided about individuals will be anonymous and unidentifiable.

***Will I be able to find out the results of the project?***

Group data will be made available upon request, via a means preferred by the participant.

***Who do I contact if I have questions about the project?***

The participant can contact the researchers to ask questions about the project.

***What if I have a complaint or any concerns?***

The study has been approved by the Human Research Ethics Committee at Australian Catholic University (approval number 2012 xxxx). If you have any complaints or concerns about the conduct of the project, you may write to the Chair of the Human Research Ethics Committee care of the Office of the Deputy Vice Chancellor (Research).

Chair, HREC  
c/o Office of the Deputy Vice Chancellor (Research)  
Australian Catholic University  
Melbourne Campus  
Locked Bag 4115  
FITZROY, VIC, 3065  
Ph: 03 9953 3150 | Fax: 03 9953 3315  
Email: [res.ethics@acu.edu.au](mailto:res.ethics@acu.edu.au)

Any complaint or concern will be treated in confidence and fully investigated. You will be informed of the outcome.

THE CATHOLIC MARIAN SPIRITUALITY (CMS) SCALE

*I want to participate! How do I sign up?*

If you are willing to participate please contact the student researcher by responding to the email address provided in the invitation for research participation. You will be asked to provide your consent either electronically or by signing both copies of the consent forms.

Thanking you in anticipation for your willingness to participate in this project.

Yours sincerely,

Fr. John Vaylilkarottu, OFMConv.

**Student Researcher**

[frjohnvofmconv@gmail.com](mailto:frjohnvofmconv@gmail.com)

Dr. Eric Stephen Marx

**Principal Supervisor**

[eric.marx@acu.edu.au](mailto:eric.marx@acu.edu.au)

## **Appendix 6: Interviews for the Pilot Study**

**ID: CMSCI-1**

**Subject: Aloysius**

Pseudonym: Thomas

Age: 39

Gender: M

Ethnicity: Asian

Occupation: Office Manager

Date of Interview: 13.06.28

### **1. Is there any difficulty in understanding these questions?**

Section I is very clear. In section 2 there were two words which were not clear. I had to read a second time to understand them. For eg. Q 3 the words, “Christian love” and in Q 12 “maternal counsel”.

### **2. What do you think about these questions? Are they related to your understanding and experience of the Catholic Marian Spirituality?**

Yes .It gives me an opportunity to respond to and measure my devotion to Mary. These questions do measure my devotion to Mary.

### **3. What is your opinion regarding the clarity of the wording of these questions?**

Generally they are clear. I may agree to the questions if only I understand them. The word, “counsel” is not understandable. In Q 37 the words, “the powers of darkness or evil”, either powers of darkness or evil is enough. Use the word ‘evil’ to make it simple and understandable. This question is very long. So reframe it like this: In my struggles against the powers of evil (hatred, anger, selfishness, etc.) I seek the intercession of Mary to overcome them.

### **4. Do you have any suggestions on anything you think important concerning Catholic Marian Spirituality?**

It can be administered among lay people and clergy. The words, “Do not know” can be added to the scale.

Q 31 My participation in the celebration of the prayers..... is complex for lay people.

Make two versions of the scale: one for the lay people and the other for the clergy.



**ID: CMSCI-2**

**Subject: Shameel**

Pseudonym: Matthew

Age: 25

Gender: M

Ethnicity: Asian

Occupation: Pharmacist

Date of Interview: 13.06.30

**1. Is there any difficulty in understanding these questions?**

No difficulty.

**2. What do you think about these questions? Are they related to your understanding and experience of the Catholic Marian Spirituality?**

Some questions are related and others are not. Q 22. The history of the Church..... is hard to answer. It depends how you interpret it. Q11. Catholics are clear that Mary is not included in the Holy Trinity. Q 28. I am not sure whether Mary was present at Pentecost.

Some of the items in the Questionnaire are yes/no questions. Eg. Q 39. I pray the Rosary daily.

Most of the questions are OK. But some of the questions may cause a little bit of backlash. Some may choose to pray to Jesus without Mary's intercession.

Q3. You can specify that Mary was filled with the Holy Spirit throughout her life.

**3. What is your opinion regarding the clarity of the wording of these questions?**

There was no problem with clarity. I can understand all the questions. The only problem I found was the personal interpretations of the questions as to "in your opinion". But everyone is going to be different.

Each question by its merit is good. Some questions need to be reframed for the lay people so that they understand them.

**4. Do you have any suggestions on anything you think important concerning Catholic Marian Spirituality?**

## THE CATHOLIC MARIAN SPIRITUALITY (CMS) SCALE

This length of the questionnaire is good. A participant can do it quickly.

Comments on Section I

Some consider Asians only Vietnamese, Chinese, etc. Others like Indians and Sri Lankans as South Asians or Curry people. So you can specify. I also strongly disagree with the demographic, "White" as it refers to race.

Q 6 University Degree/Graduate. You may have to clarify that. You may have to reword Q. 39 "Do you pray the Rosary?" for a different scale.

I suggest that these questions be sent to Catholic lay people who are not well educated in their faith to get responses which represent the general Catholic population.

**ID: CMSCI-3**

**Subject: Carmel**

Pseudonym: Felicity

Age: 44

Gender: F

Ethnicity: White/Caucasian

Occupation: Community Mental Health Worker

Date of Interview: 13.07.01

### **1. Is there any difficulty in understanding these questions?**

I did not find any difficulty in understanding these questions. But there were a couple of things. I thought the wordings were a bit odd. In Q 1. Mary "viewed" her life is odd. I would suggest Mary "considered" her life in relation to the Word of God.

I think that Mary's role in the Church begins with her conception without sin rather than when she was asked to be the Mother of God. I do not think there are any other issues with wording other than these.

I do not know the level of education of the participants. So I do not know if they can understand these words. But these words are commonly used in the Church. For e.g. The word, "motto" captures the spirituality. But I do not know how well that might be understood.

### **2. What do you think about these questions? Are they related to your understanding and experience of the Catholic Marian Spirituality?**

Yes. I think there are a range of questions which capture the understanding of Mary's place in the Church and how that affects the practice of their faith. How it deepens their faith and

## THE CATHOLIC MARIAN SPIRITUALITY (CMS) SCALE

what strength it gives them. Some of the questions presuppose a basic knowledge of the Bible.

### **3. What is your opinion regarding the clarity of the wording of these questions?**

I do think they are pretty clear. Some of the words have more to do with different people of different generations. Q. 37. Woman in perpetual enmity with the powers of evil may not be understood by all. Suggestion would be “eternal opposition” instead of perpetual enmity.

I do think these questions in general are suitable for the understanding of the Catholic lay people. But if people have no relationship with Mary they might not understand.

### **4. Do you have any suggestions on anything you think important concerning Catholic Marian Spirituality?**

Ask people if they have a relationship to Mary under a particular name or title. That could be a secondary phase of the study. I also wonder if these questions can be asked to Orthodox Christians since they are also devoted to Mary.

**ID: CMSCI-4**

**Subject: Steve**

Pseudonym: Nathan

Age: 65

Gender: M

Ethnicity: White/Caucasian

Occupation: Driver

Date of Interview: 13.07.02

### **1. Is there any difficulty in understanding these questions?**

There were one or two questions that I did not know the answers. I found most of the questions were Church teachings. Some of the questions were tricky questions, for e.g. Q 16. Blessed Virgin Mary is a person of the Holy Trinity. Even if devotion to Mary is the easiest way to Jesus, I cannot see it. Q.26 I have not thought about imitating Mary. Q 28 Mary was not present at Pentecost is a trick question. Q 31-34 I agree but do not know if they are right. Q.34, 20 and 38 are similar questions.

### **2. What do you think about these questions? Are they related to your understanding and experience of the Catholic Marian Spirituality?**

I do understand where they come from: Jesus through Mary. Sometimes I do not go that way.

**3. What is your opinion regarding the clarity of the wording of these questions?**

Generally they are very clear.

**4. Do you have any suggestions on anything you think important concerning Catholic Marian Spirituality?**

Ask a question, do you pray the Rosary at all? Daily, once a week, etc. I find Divine Mercy Chaplet easy to say. Rosary is longer. Rosary needs a more committed effort.

**ID: CMSCI-5**

**Subject: Rachel**

Pseudonym: Sarah

Age: 29

Gender: F

Ethnicity: Caucasian

Occupation: Student

Date of Interview: 13.07.03

**1. Is there any difficulty in understanding these questions?**

Yes. Some of the jargon words I did not understand what they meant. For e.g. Q37 the woman in perpetual enmity. Q 19. The motto of my Marian spirituality... I did not understand what the question was telling me. Other than these everything else is straight forward.

**2. What do you think about these questions? Are they related to your understanding and experience of the Catholic Marian Spirituality?**

I noticed that some of the items are testing factual knowledge. I can understand you want to capture some of that. But for me factual knowledge is not the only thing. There are other things important to my spirituality. I would recommend mixing up knowledge items with other attitude and behavioural questions.

To be honest, I never classify myself as devoted to Mary. To me the Blessed Virgin Mary is one model- a person to look to like other persons in the Bible. For me intercession of the Blessed Virgin Mary is a means of praying and being close to God. She is an instrument to

## THE CATHOLIC MARIAN SPIRITUALITY (CMS) SCALE

me but not as strongly as some others would consider her in their faith journey. Not that I do not want to but have not put an effort into this.

### **3. What is your opinion regarding the clarity of the wording of these questions?**

Some of the words I did not understand. I already mentioned them. All other words I have understood. Some of the questions are yes or no and not of strongly disagree to strongly agree. For e.g. If Mary was present at Pentecost.

I think most of them were understandable for a lay but educated person. Some of the words are those we do not read them every day or very often. But those who are familiar with these words will not have any problem.

### **4. Do you have any suggestions on anything you think important concerning Catholic Marian Spirituality?**

My suggestions are more about the format. To mix the items. Indicate the choice on every page. Otherwise I find myself looking back. Change the tables to make it easier to read.

I think it is a good length. Not too long. I think these items would provide a measure to capture Catholic Marian Spirituality. I think it is very relevant to what you are doing. It is pretty good.

**ID: CMSCI-6**

**Subject: Michael**

Pseudonym: Conrad

Age: 65

Gender: M

Ethnicity: White/Caucasian

Occupation: Pest Control

Date of Interview: 13.07.03

### **1. Is there any difficulty in understanding these questions?**

No. I took my time to read them and so understood them thoroughly. Not quickly but you have to read them slowly. To tell you the truth, it tested my faith. Lots of things I did not know. I have been taught but I did not recollect them. I thought a lot of questions were good.

### **2. What do you think about these questions? Are they related to your understanding and experience of the Catholic Marian Spirituality?**

## THE CATHOLIC MARIAN SPIRITUALITY (CMS) SCALE

To a degree, yes. I knew them from childhood being a Catholic. I do pray through Mary. Some of the questions relate to Mary as Higher Power. I don't think so. Generally these questions are good.

### **3. What is your opinion regarding the clarity of the wording of these questions?**

That was not a problem. But once the questions were read, I had to go back to them. It was clear. I did understand it quite clearly.

### **4. Do you have any suggestions on anything you think important concerning Catholic Marian Spirituality?**

Not really. No. It opened up my insight about Mary which most times I do not think about. I thought it was a nice exercise. I only pray the Rosary very rarely. I do pray the "Hail Mary" quite a lot. People with less English or understanding may find some of the questions difficult, but not all of them.

**ID: CMSCI-7**

**Subject: Liza**

Pseudonym: Jacinta

Age: 29

Gender: F

Ethnicity: Asian

Occupation: Speech Pathologist

Date of Interview: 13.07.11

### **1. Is there any difficulty in understanding these questions?**

Yeah. There were a couple of ambiguous questions. On the whole, generally, these were very well written. Some of the questions did not lend themselves to the seven point scale. For e.g. Q22. The history of the Church... I think you have to specify that you are referring to the Catholic Church and not just the Christian Church. But I think the rest of the questions are well written.

### **2. What do you think about these questions? Are they related to your understanding and experience of the Catholic Marian Spirituality?**

Yes. It has a good break down of the understanding of Mary from the Bible and the practical sense of what Marian devotion is. It is good.

**3. What is your opinion regarding the clarity of the wording of these questions?**

By and large, many of the questions are clear. However, I still think they can be re-written in the easy English format so that it be more easily read and understood by a wider audience. I think you want to capture the opinion of people who are not proficient in English but only their second language. Some other questions need little bit of clarification. The tricky part will be maintaining the essence which will be a challenge.

**4. Do you have any suggestions on anything you think important concerning Catholic Marian Spirituality?**

I think you have given a good overview of Marian spirituality. I would suggest one thing: To see if the items marry well with the research questions. To balance between too much and too little data. I think you have covered enough things.

**ID: CMSCI-8**

**Subject: Suzana**

Pseudonym: Johanna

Age: 47

Gender: F

Ethnicity: African

Occupation: Operational Director

Date of Interview: 13.07.13

**1. Is there any difficulty in understanding these questions?**

No. I think the questions are very clear and distinct. But some of the questions I struggled to respond I was not sure whether I agree or disagree with some of the questions. For e.g. Q 16. The Blessed Virgin Mary is a person of the Holy Trinity. I do not think so.

**2. What do you think about these questions? Are they related to your understanding and experience of the Catholic Marian Spirituality?**

I believe that they are strongly related to my belief about the Blessed Virgin Mary. As I went through these questions I realized how close I am to the Blessed Virgin Mary. I do them every day without realizing it.

**3. What is your opinion regarding the clarity of the wording of these questions?**

## THE CATHOLIC MARIAN SPIRITUALITY (CMS) SCALE

The questions are very clear. However, these questions may not be clear to those who do not understand Mary's place in Christian faith. For me personally, I have adopted her as my spiritual mother. She has replaced my biological mother I don't have now.

### **4. Do you have any suggestions on anything you think important concerning Catholic Marian Spirituality?**

I have no issues or concerns regarding these questions. These questions are straight forward. There were a few questions I struggled with. I had my own responses in my head but I was probably hesitant.

I think these questions are very relevant to what you are doing. They are very meaningful to your study.



**Appendix 7: Pilot Study Questionnaire**



**AUSTRALIAN CATHOLIC UNIVERSITY  
SCHOOL OF PSYCHOLOGY**

**Australian Catholic University Limited, ABN 15 050 192 660**

Melbourne Campus: 115 Victoria Parade Locked Bag 4115 Victoria 3065

Tel 03 9953 3000

[www.acu.edu.au](http://www.acu.edu.au)

---

<p>This questionnaire should contain 11 pages. Please notify the researcher if you do not have the required number of pages.</p>
--

You are to work through this questionnaire at your own pace. However, please complete the sections in order (i.e., complete Section 1 before moving to Section 2.). Also, please do not look at any section of the questionnaire until you are ready to complete that section – that is, do not “flip ahead” through the pages.

**SECTION 1 (Background Questionnaire)**

**INSTRUCTIONS**

We would like to obtain some basic background information from you. **When answering these questions, please tick the number or letter corresponding to your answer, or provide the information requested.**

THE CATHOLIC MARIAN SPIRITUALITY (CMS) SCALE

**1. Gender:**

- Male  Female

**2. Age:** \_\_\_\_\_

**3. Marital status:**

- Single  
 Living with a partner, not married  
 Married  
 Married but separated  
 Divorced  
 Widowed

**4. Which best describes your ethnic background?**

- Aboriginal/ Torres Strait Islander  
 Asian (including India, Sri Lanka, Indonesia, etc.)  
 Pacific Islander  
 European  
 Anglo-Celtic (English, Scottish, Welsh, Irish)  
 North America (Canada, USA)  
 Central and South America (El Salvador, Argentina, Chile, etc.)  
 North America (Canada, USA)  
 African  
 Australasian (Australia, New Zealand)  
 Middle East (Israel, Jordan, Palestine, Egypt, Lebanon, etc.)  
 Slavic (Latvia, Lithuania, Russia, etc.)

**5. Please tick the level of your education:**

- Not finished primary school  
 Primary school  
 Not finished secondary school  
 12th grade or equivalent  
 TAFE/Diploma  
 Vocational training/apprenticeship  
 Undergraduate degree (BA, BSc, etc.)  
 Post-Graduate degree (MA, PhD, etc.)

**6. Main occupation:** \_\_\_\_\_

**END OF SECTION 1**

THE CATHOLIC MARIAN SPIRITUALITY (CMS) SCALE

**SECTION 2**

**Directions:** The following is a survey designed to measure Catholic Marian Spirituality (your devotion or closeness to the Blessed Virgin Mary from both the dimensions of faith and practice). **For each of the following statements please circle the choice that best indicates the extent of your agreement or disagreement.** All information is strictly confidential, so do not put your name anywhere on the questionnaire.

		<b>Strongly Disagree</b>	<b>Disagree</b>	<b>Slightly Disagree</b>	<b>Neither Agree Nor Disagree</b>	<b>Slightly Agree</b>	<b>Agree</b>	<b>Strongly Agree</b>	<b>Don't Know</b>
		<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>	<b>6</b>	<b>7</b>	<b>8</b>
1	I am interested in reciting Marian prayers ("Holy Rosary", "Hail Mary", "Hail Holy Queen", "Memorare-remember O Mother", etc.)	1	2	3	4	5	6	7	8
2	The Blessed Virgin Mary is a model for gratitude to God.	1	2	3	4	5	6	7	8
3	In my struggles against the powers of evil (selfishness, greed, hatred, etc.) I seek the intercession of Mary.	1	2	3	4	5	6	7	8
4	Blessed Mary surrendered herself to God saying, "Behold the handmaid of the Lord; be it done to me according to thy word".	1	2	3	4	5	6	7	8
5	Visiting the Shrines of Mary strengthens my devotion to her.	1	2	3	4	5	6	7	8
6	I experience God's protection through Mary by wearing a scapular and/or medals	1	2	3	4	5	6	7	8

THE CATHOLIC MARIAN SPIRITUALITY (CMS) SCALE

		<b>Strongly Disagree</b>	<b>Disagree</b>	<b>Slightly Disagree</b>	<b>Neither Agree Nor Disagree</b>	<b>Slightly Agree</b>	<b>Agree</b>	<b>Strongly Agree</b>	<b>Don't Know</b>
		<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>	<b>6</b>	<b>7</b>	<b>8</b>
	with Mary's image.								
7	Attending Mass is more important than prying the Rosary.	1	2	3	4	5	6	7	8
8	I ask Mary's intercession to understand the Word of God in my life.	1	2	3	4	5	6	7	8
9	My participation in the prayers of the Church in honour of Mary (e.g., feasts, novenas, and rosary) deepens my understanding of her.	1	2	3	4	5	6	7	8
10	I try to imitate Blessed Mary's compassion by listening patiently to others when they tell me their problems.	1	2	3	4	5	6	7	8
11	Devotion to Mary increases my participation in the Sacraments of the Church.	1	2	3	4	5	6	7	8
12	I am interested in reading Marian literature (writings about Mary) to deepen my knowledge of Blessed Mary.	1	2	3	4	5	6	7	8
13	I seek Mary's intercession in all my temporal and spiritual needs.	1	2	3	4	5	6	7	8

THE CATHOLIC MARIAN SPIRITUALITY (CMS) SCALE

		<b>Strongly Disagree</b>	<b>Disagree</b>	<b>Slightly Disagree</b>	<b>Neither Agree Nor Disagree</b>	<b>Slightly Agree</b>	<b>Agree</b>	<b>Strongly Agree</b>	<b>Don't Know</b>
		<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>	<b>6</b>	<b>7</b>	<b>8</b>
14	Like the beloved disciple of Jesus, the Apostle John, I have received the Blessed Mary into my life as my spiritual mother.	1	2	3	4	5	6	7	8
15	I try to imitate the Immaculate Mother Mary by keeping my mind and heart pure.	1	2	3	4	5	6	7	8
16	I deepen my devotion to Mary by my participation in the singing of her hymns.	1	2	3	4	5	6	7	8
17	The Virgin Mary is not equal to God but only His creature.	1	2	3	4	5	6	7	8
18	The more I love Mary, the more I love the Church.	1	2	3	4	5	6	7	8
19	My spiritual union with Mary helps me to bring Christ's love to the less privileged and those in need (like visiting the sick, volunteering my time and sharing my resources).	1	2	3	4	5	6	7	8
20	I express my highest devotion to Mary as my spiritual mother through the prayers of the Church.	1	2	3	4	5	6	7	8
21	Mary continues to pray for the outpouring of the Holy Spirit in the Church.	1	2	3	4	5	6	7	8

THE CATHOLIC MARIAN SPIRITUALITY (CMS) SCALE

		<b>Strongly Disagree</b>	<b>Disagree</b>	<b>Slightly Disagree</b>	<b>Neither Agree Nor Disagree</b>	<b>Slightly Agree</b>	<b>Agree</b>	<b>Strongly Agree</b>	<b>Don't Know</b>
		<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>	<b>6</b>	<b>7</b>	<b>8</b>
22	I pray through Holy Mary's intercession not to lose heart in the trials and disappointments of my life.	1	2	3	4	5	6	7	8
23	The depiction of Mary in art assists me to think on her life.	1	2	3	4	5	6	7	8
24	The Virgin Mary's Assumption into heaven provides me with the hope that I can be united with God eternally in heaven.	1	2	3	4	5	6	7	8
25	Devotion to Mary is the easiest way to obtain the closest relationship to Jesus Christ.	1	2	3	4	5	6	7	8
26	The purpose of my Marian devotion is "through Mary to Jesus".	1	2	3	4	5	6	7	8
27	Mary recognizes that it is the Almighty God who has done great things for her.	1	2	3	4	5	6	7	8
28	Like Mary who rejoiced in her Saviour I try to constantly remind myself that my ultimate happiness is in God Almighty.	1	2	3	4	5	6	7	8
29	The Blessed Virgin Mary is not a person of the Holy Trinity	1	2	3	4	5	6	7	8

THE CATHOLIC MARIAN SPIRITUALITY (CMS) SCALE

		<b>Strongly Disagree</b>	<b>Disagree</b>	<b>Slightly Disagree</b>	<b>Neither Agree Nor Disagree</b>	<b>Slightly Agree</b>	<b>Agree</b>	<b>Strongly Agree</b>	<b>Don't Know</b>
		<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>	<b>6</b>	<b>7</b>	<b>8</b>
30	I honour Mary as the Mother of God.	1	2	3	4	5	6	7	8
31	Mary is a role model for those who want to follow Jesus.	1	2	3	4	5	6	7	8
32	The Blessed Virgin Mary leads me to her Son, Jesus, telling me, "Do whatever he tells you."	1	2	3	4	5	6	7	8
33	The Blessed Virgin Mary is not greater than God.	1	2	3	4	5	6	7	8
34	Jesus performed his first miracle at the wedding of Cana by the intercession of Mary.	1	2	3	4	5	6	7	8
35	On the Cross Jesus entrusted Mary to his beloved disciple who took her into his own home.	1	2	3	4	5	6	7	8
36	Mary who stood at the foot of the Cross is a model for forgiveness in Jesus.	1	2	3	4	5	6	7	8
37	Full of faith and trust in God, Mary accepted God's call to be the mother of his Son Jesus Christ.	1	2	3	4	5	6	7	8
38	I try to look at all the events of my life through the eyes of Virgin Mary.	1	2	3	4	5	6	7	8

THE CATHOLIC MARIAN SPIRITUALITY (CMS) SCALE

		<b>Strongly Disagree</b>	<b>Disagree</b>	<b>Slightly Disagree</b>	<b>Neither Agree Nor Disagree</b>	<b>Slightly Agree</b>	<b>Agree</b>	<b>Strongly Agree</b>	<b>Don't Know</b>
		<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>	<b>6</b>	<b>7</b>	<b>8</b>
39	The Blessed Virgin Mary is a model of living the teachings of the Bible.	1	2	3	4	5	6	7	8
40	Blessed Mary was filled with the Holy Spirit throughout her life.	1	2	3	4	5	6	7	8
41	I try to imitate the theological virtues (faith, hope and Christian love) of Mary in my daily life.	1	2	3	4	5	6	7	8
42	Like Mary who visited Elizabeth to help her, I like to be there for others when they are in difficulty.	1	2	3	4	5	6	7	8
43	Pondering the Word of God in her heart, the Blessed Virgin Mary considered her life in relation to it.	1	2	3	4	5	6	7	8

		<b>Never</b>	<b>About once or twice a month</b>	<b>Several times a month</b>	<b>Every week</b>	<b>Several times a week</b>	<b>Every day</b>	<b>More than once a day</b>	<b>Don't Know</b>
		<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>	<b>6</b>	<b>7</b>	<b>8</b>
44	How often do you pray the Rosary?	1	2	3	4	5	6	7	8

45. As this is a pilot study, please feel free to write below any comments concerning how you found this questionnaire and suggestions to improve it.

**Thank you for agreeing to participate in this study.**



**Appendix 8: Participant Information Letter: Main Study Participants**



**AUSTRALIAN CATHOLIC UNIVERSITY  
SCHOOL OF PSYCHOLOGY**

**Australian Catholic University Limited, ABN 15 050 192 660**

Melbourne Campus: 115 Victoria Parade Locked Bag 4115 Victoria 3065

Tel 03 9953 3000

[www.acu.edu.au](http://www.acu.edu.au)

---

**PARTICIPANT INFORMATION LETTER**

**(Main Study)**

**PROJECT TITLE:** The Catholic Marian Spirituality Scale: Conceptualization and Measurement

**PRINCIPAL INVESTIGATOR:** Dr. Eric Stephen Marx

**STUDENT RESEARCHER:** Fr. John Vayalilkarottu, OFMConv.

**STUDENT'S DEGREE:** Master of Philosophy (MPhil.)

Dear Participant,

You are invited to participate in the research project described below.

***What is the project about?***

The research project involves developing a valid and reliable measurement of the Catholic Marian Spirituality. Although there are many scales to measure spirituality and well-being in general, currently there exists no scale to measure Catholic Marian Spirituality in itself. Your

## THE CATHOLIC MARIAN SPIRITUALITY (CMS) SCALE

participation in this project will help you to reflect on your devotion or closeness to the Blessed Virgin Mary- an essential aspect of Catholic faith and practice. As a Catholic believer, this project is also important to you and to our Church because your participation will enable the researchers to collect the necessary data for the development of a scale which can be used in the Social and Health Sciences.

### ***Who is undertaking the project?***

This project is being conducted by Fr. John Vayalilkarottu to form the basis of his degree for the Master of Philosophy at the Australian Catholic University under the supervision of Dr. Eric Stephen Marx.

### ***Are there any risks associated with participating in this project?***

There are no foreseeable risks involved in participating in this project other than the time which you will spend to complete a questionnaire. Should you find any risks please do not hesitate to contact either the principal investigator or the Chair of the Human Research Ethics Committee at ACU.

### ***What will I be asked to do?***

You will be required to complete either an anonymous online or a hard copy questionnaire consisting of twenty –eight items.

### ***How much time will the project take?***

You will be required to spend approximately 15- 20 minutes.

### ***What are the benefits of the research project?***

The development of an appropriate measuring instrument for Catholic Marian Spirituality can potentially enhance research on the link between religion, spirituality and health/well-being. It can be used to examine whether Marian Spirituality correlates with subjective well-being, quality of life and different aspects of health and well-being. Through systematic research this project can provide the connection between faith and practice or religion and spirituality from a Catholic Christian perspective.

### ***Can I withdraw from the study?***

Participation in this study is completely voluntary. You are not under any obligation to participate. If you agree to participate, you can withdraw from the study at any time without any adverse consequences.

### ***Will anyone else know the results of the project?***

The information will be reported in the form of a thesis, and potentially published in a scientific journal. Results are aggregated so no identifying information is used. As the surveys will be anonymous, it will not be possible to withdraw data once it has been submitted.

## THE CATHOLIC MARIAN SPIRITUALITY (CMS) SCALE

Information obtained during the course of the study (both identifiable and non-identifiable) will be stored in locked cabinets with the student researcher. After the study it will be kept in locked cabinets in Room FC 12B of ACU Brisbane Campus. Access to this information will only be given to researchers involved in this project. After six years, the information will be deleted from the computer/external USB Drive and paper copies shredded.

In the event that this study is published, all information provided about individuals will be anonymous and unidentifiable.

### ***Will I be able to find out the results of the project?***

Group data will be made available upon request, via a means preferred by the participant.

### ***Who do I contact if I have questions about the project?***

The participant can contact the researchers to ask questions about the project.

### ***What if I have a complaint or any concerns?***

The study has been approved by the Human Research Ethics Committee at Australian Catholic University( Approval number: 2014 106Q) If you have any complaints or concerns about the conduct of the project, you may write to the Manager of the Human Research Ethics Committee care of the Office of the Deputy Vice Chancellor (Research).

Manager, Ethics

c/o Office of the Deputy Vice Chancellor (Research)  
Australian Catholic University, North Sydney Campus  
PO Box 968, NORTH SYDNEY, NSW 2059  
Ph: 02 9739 2519 | Fax: 02 9739 2870  
Email: [res.ethics@acu.edu.au](mailto:res.ethics@acu.edu.au)

Any complaint or concern will be treated in confidence and fully investigated. You will be informed of the outcome.

### ***I want to participate! How do I sign up?***

If you are willing to participate please contact the student researcher by responding to the email address provided in the invitation for research participation.

Thanking you in anticipation for your willingness to participate in this project.

Yours sincerely,

Fr. John Vaylilkarottu, OFMConv.  
**Student Researcher**  
[jjvaya001@myacu.edu.au](mailto:jjvaya001@myacu.edu.au)

Dr. Eric Stephen Marx  
**Principal Supervisor**  
[eric.marx@acu.edu.au](mailto:eric.marx@acu.edu.au)

**Appendix 9: Main Study Questionnaire**



**AUSTRALIAN CATHOLIC UNIVERSITY**

**SCHOOL OF PSYCHOLOGY**

**Australian Catholic University Limited, ABN 15 050 192 660**

Melbourne Campus: 115 Victoria Parade Locked Bag 4115 Victoria 3065

Tel 03 9953 3000

[www.acu.edu.au](http://www.acu.edu.au)

---

This questionnaire should contain 8 pages. Please notify the researcher if you do not have the required number of pages.

Please finish each section in order. Do not move to the next section till you have answered each question. Please take your time.

**SECTION 1 (Background Questionnaire)**

Please answer each question.

**1. What is your gender?**

- Male
- Female

a. F

2. **What is your age?** \_\_\_\_\_

3. **Marital status:**

- Single
- Living with a partner, not married
- Married
- Married but separated
- Divorced
- Widowed

4. **Which best describes your ethnic background?**

- Aboriginal/ Torres Strait Islander
- Asia (including India, Sri Lanka, Pakistan, etc.)
- Pacific Island
- Western Europe (Italy, France, Spain, etc.)
- Eastern Europe (Russia, Ukraine, Poland, etc.)
- Anglo – Celtic ( UK, Ireland & Scotland)
- Central and South America (El Salvador, Argentina, Chile, etc.)
- North America (Canada, USA& Mexico)
- Other Latino (Cuba, Puerto Rico, Dominican Republic, etc.)
- Africa
- Australia/New Zealand
- Middle East (Israel, Jordan, Palestine, Egypt, Lebanon, etc.)

5. **Please tick the level of school you finished:**

- Not finished primary school
- Primary school
- Not finished High school
- High School
- TAFE/Diploma
- Vocational training/apprenticeship
- Undergraduate degree (BA, BSc, etc.)
- Post-Graduate degree (MA, PhD, etc.)

6. **What is your main occupation?** \_\_\_\_\_

**END OF SECTION 1**

## THE CATHOLIC MARIAN SPIRITUALITY SCALE

### SECTION 2

This survey is designed to measure your Catholic Marian Spirituality (how close you feel to the Blessed Virgin Mary and how this shows itself in practice ).Please specify how much you agree or disagree with each of the following statements. All information is strictly confidential, so do not put your name anywhere on the questionnaire. For each of the following statements please select the choice that best indicates the extend of your agreement or disagreement.

		<b>Strongly Disagree</b>	<b>Disagree</b>	<b>Slightly Disagree</b>	<b>Neither Agree Nor Disagree</b>	<b>Slightly Agree</b>	<b>Agree</b>	<b>Strongly Agree</b>
		<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>	<b>6</b>	<b>7</b>
1	I am interested in praying Marian prayers daily ("Holy Rosary", "Hail Holy Queen", "Memorare - remember O Mother", etc.).	1	2	3	4	5	6	7
2	The Blessed Virgin Mary surrendered her life to God saying, "Behold the handmaid of the Lord; be it done to me according to Thy word".	1	2	3	4	5	6	7
3	Visiting Shrines of the Blessed Virgin Mary strengthens my love for her.	1	2	3	4	5	6	7
4	Attending the Mass is more important than praying the Rosary	1	2	3	4	5	6	7
5	My participation in the prayers of the Church, in honour of Mary (e.g., feasts, novenas, and rosary), deepens my love for her.	1	2	3	4	5	6	7
6	I try to imitate the Blessed Virgin Mary's compassion by listening patiently to others when they tell me their problems.	1	2	3	4	5	6	7
7	I am interested in reading Marian literature (writings about Mary) to deepen my knowledge of the Blessed Virgin Mary.	1	2	3	4	5	6	7
8	I seek the Blessed Virgin Mary's intercession in all my needs.	1	2	3	4	5	6	7

THE CATHOLIC MARIAN SPIRITUALITY SCALE

		<b>Strongly Disagree</b>	<b>Disagree</b>	<b>Slightly Disagree</b>	<b>Neither Agree Nor Disagree</b>	<b>Slightly Agree</b>	<b>Agree</b>	<b>Strongly Agree</b>
		<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>	<b>6</b>	<b>7</b>
9	Like the Apostle John, I have received the Blessed Virgin Mary into my life as my spiritual mother.	1	2	3	4	5	6	7
10	I try to imitate the Blessed Virgin Mary by keeping my mind and heart pure.	1	2	3	4	5	6	7
11	I deepen my devotion to the Blessed Virgin Mary by singing hymns in her honour.	1	2	3	4	5	6	7
12	The Blessed Virgin Mary is not equal to or greater than God but only His creature.	1	2	3	4	5	6	7
13	The more I love Mary, the more I love the Church.	1	2	3	4	5	6	7
14	My spiritual union with the Blessed Virgin Mary helps me to share Christ's love with those in need (like visiting the sick, volunteering my time and sharing my resources).	1	2	3	4	5	6	7
15	I am interested in wearing a scapular and/or medals with the Blessed Virgin Mary's image on them.	1	2	3	4	5	6	7
16	Seeing the Blessed Virgin Mary in art helps me to think about her life.	1	2	3	4	5	6	7
17	The Blessed Virgin Mary's Assumption into heaven gives me hope that I can be united with God forever in heaven.	1	2	3	4	5	6	7
18	The Blessed Virgin Mary recognizes that it is the Almighty God who has done great things for her.	1	2	3	4	5	6	7
19	The Blessed Virgin Mary is not a person of the Holy Trinity.	1	2	3	4	5	6	7

## THE CATHOLIC MARIAN SPIRITUALITY SCALE

		<b>Strongly Disagree</b>	<b>Disagree</b>	<b>Slightly Disagree</b>	<b>Neither Agree Nor Disagree</b>	<b>Slightly Agree</b>	<b>Agree</b>	<b>Strongly Agree</b>
		<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>	<b>6</b>	<b>7</b>
20	I honour the Virgin Mary as the Mother of God.	1	2	3	4	5	6	7
21	The Blessed Virgin Mary leads me to her Son, Jesus, telling me, "Do whatever he tells you."	1	2	3	4	5	6	7
22	Jesus performed his first miracle at the wedding of Cana by the intercession of the Blessed Virgin Mary.	1	2	3	4	5	6	7
23	Blessed Mary stood at the foot of the Cross and is a model for offering forgiveness through Jesus.	1	2	3	4	5	6	7
24	I try to look at all the events of my life through the eyes of the Blessed Virgin Mary.	1	2	3	4	5	6	7
25	The Blessed Virgin Mary is a model for living the teachings of the Bible.	1	2	3	4	5	6	7
26	The Blessed Virgin Mary was filled with the Holy Spirit throughout her life.	1	2	3	4	5	6	7
27	I try to imitate the virtues of the Blessed Virgin Mary (faith, hope and love) in my daily life.	1	2	3	4	5	6	7

**Thank you for your participation!**



# THE CATHOLIC MARIAN SPIRITUALITY SCALE

## Appendix 10: Pilot Study analysis- SPSS Output

### Reliability

#### Reliability Statistics

Cronbach's Alpha	N of Items
.954	10

#### Reliability Statistics -

Cronbach's Alpha	N of Items
.942	9

#### Reliability Statistics

Cronbach's Alpha	N of Items
.889	4

#### Reliability Statistics

Cronbach's Alpha	N of Items
.782	4

THE CATHOLIC MARIAN SPIRITUALITY SCALE

**Factor Analysis**

**Total Variance Explained**

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings	
	Total	% of Variance	Cumulative %	Total	% of Variance
1	12.915	47.832	47.832	12.915	47.832
2	2.996	11.096	58.928	2.996	11.096
3	1.872	6.932	65.860	1.872	6.932
4	1.623	6.010	71.870	1.623	6.010
5	.950	3.518	75.388		
6	.761	2.819	78.207		
7	.609	2.254	80.461		
8	.558	2.065	82.526		
9	.504	1.866	84.393		
10	.454	1.681	86.073		
11	.430	1.593	87.666		
12	.368	1.364	89.030		
13	.352	1.303	90.333		
14	.343	1.269	91.602		
15	.326	1.206	92.808		
16	.302	1.120	93.928		
17	.265	.980	94.908		
18	.237	.879	95.787		

THE CATHOLIC MARIAN SPIRITUALITY SCALE

19	.209	.775	96.563	
20	.194	.720	97.282	
21	.166	.614	97.897	
22	.143	.530	98.427	
23	.140	.519	98.946	
24	.131	.484	99.430	
25	.109	.403	99.833	
26	.032	.119	99.952	
27	.013	.048	100.000	

**Total Variance Explained**

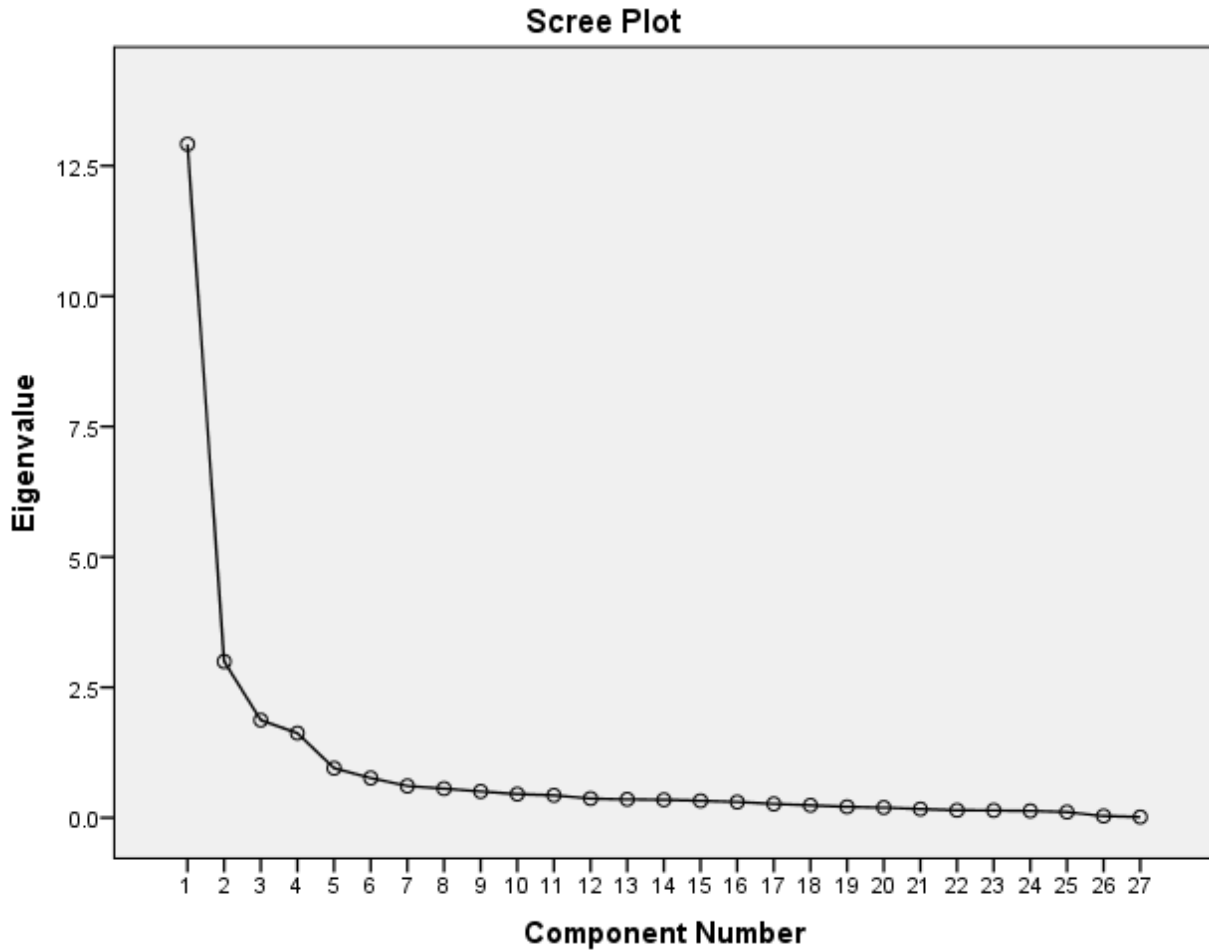
Component	Extraction Sums of Squared Loadings	Rotation Sums of Squared Loadings		
	Cumulative %	Total	% of Variance	Cumulative %
1	47.832	7.314	27.089	27.089
2	58.928	6.257	23.175	50.265
3	65.860	3.193	11.825	62.090
4	71.870	2.640	9.780	71.870
5				
6				
7				
8				
9				
10				
11				

THE CATHOLIC MARIAN SPIRITUALITY SCALE

12				
13				
14				
15				
16				
17				
18				
19				
20				
21				
22				
23				
24				
25				
26				
27				

Extraction Method: Principal Component Analysis.

THE CATHOLIC MARIAN SPIRITUALITY SCALE



**Rotated Component Matrix<sup>a</sup>**

	Component			
	1	2	3	4
1. I am interested in reciting Marian prayers ("Holy Rosary, "Hail Mary", "Hail Holy Queen", "Memorare- remember O Mother", etc.)	.831	.301	.198	-.040
5. Visiting the Shrines of Mary strengthens my devotion to her.	.794	.309	.166	-.017
9. My participation in the prayers of the Church in honour of Mary	.784	.152	.187	-.091

THE CATHOLIC MARIAN SPIRITUALITY SCALE

(e.g., feasts, novenas, and rosary) deepens my understanding of her.				
12. I am interested in reading Marian literature (writings about Mary) to deepen my knowledge of Blessed Mary.	.780	.221	.134	-.001
13. I seek Mary's intercession in all my temporal and spiritual needs.	.772	.227	.222	-.072
23. The depiction of Mary in art assists me to think on her life.	.750	.396	.239	-.101
38. I try to look at all the events of my life through the eyes of Virgin Mary.	.744	.324	.265	-.065
16. I deepen my devotion to Mary by my participation in the singing of her hymns.	.730	.276	.127	-.147
6. I experience God's protection through Mary by wearing a scapular and/or medals with Mary's image.	.724	.364	.232	-.024
41. I try to imitate the theological virtues (faith, hope and Christian love) of Mary in my daily life.	.682	.434	.134	-.200
4. Blessed Mary surrendered herself to God saying, "Behold the handmaid of the Lord; be it done to me according to thy word".	.268	.843	.162	.036
27. Mary recognizes that it is the Almighty God who has done great things for her.	.180	.787	.151	.153
29. The Blessed Virgin Mary is not a person of the Holy Trinity	.396	.768	.165	-.050
14. Like the beloved disciple of Jesus, the Apostle John, I have	.204	.766	.132	.073

## THE CATHOLIC MARIAN SPIRITUALITY SCALE

received the Blessed Mary into my life as my spiritual mother.				
32. The Blessed Virgin Mary leads me to her Son, Jesus, telling me, "Do whatever he tells you."	.221	.761	.177	.096
34. Jesus performed his first miracle at the wedding of Cana by the intercession of Mary.	.427	.729	.061	.005
36. Mary who stood at the foot of the Cross is a model for forgiveness in Jesus.	.468	.711	.138	-.118
39. The Blessed Virgin Mary is a model of living the teachings of the Bible.	.298	.701	.353	.080
40. Blessed Mary was filled with the Holy Spirit throughout her life.	.549	.688	.071	-.038
33. The Blessed Virgin Mary is not greater than God.	.209	.197	.862	.064
7. Attending Mass is more important than praying the Rosary.	.220	.197	.861	.076
30. I honour Mary as the Mother of God.	.339	.224	.712	-.183
24. The Virgin Mary's Assumption into heaven provides me with the hope that I can be united with God eternally in heaven.	.372	.225	.696	-.245
19. My spiritual union with Mary helps me to bring Christ's love to the less privileged and those in need (like visiting the sick, volunteering my time and sharing my resources).	-.114	-.045	.053	.847
18. The more I love Mary, the more I love the Church.	-.055	.118	.107	.776

## THE CATHOLIC MARIAN SPIRITUALITY SCALE

10. I try to imitate Blessed Mary's compassion by listening patiently to others when they tell me their problems.	.043	.083	-.179	.773
15. I try to imitate the Immaculate Mother Mary by keeping my mind and heart pure.	-.176	.030	-.099	.681

Extraction Method: Principal Component Analysis.

Rotation Method: Varimax with Kaiser Normalization.<sup>a</sup>

a. Rotation converged in 6 iterations.



THE CATHOLIC MARIAN SPIRITUALITY SCALE

**Appendix 11: Main Study analysis SPSS output**

**What is your gender**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Male	420	49.2	49.2	49.2
	Female	433	50.8	50.8	100.0
	Total	853	100.0	100.0	

**Age**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	18-20	20	2.3	2.3	2.3
	21-30	117	13.7	13.7	16.1
	31-40	183	21.5	21.5	37.5
	41-50	195	22.9	22.9	60.4
	51-60	169	19.8	19.8	80.2
	61-70	105	12.3	12.3	92.5
	71-80	53	6.2	6.2	98.7
	80+	11	1.3	1.3	100.0
	Total	853	100.0	100.0	

**Marital status**

		Frequency	Percent	Valid Percent
Valid	Single	152	17.8	17.8
	Living with a partner, not	14	1.6	1.6

THE CATHOLIC MARIAN SPIRITUALITY SCALE

married			
Married	627	73.5	73.5
Married but separated	12	1.4	1.4
Divorced	27	3.2	3.2
Widowed	21	2.5	2.5
Total	853	100.0	100.0

**Marital status**

		Cumulative Percent
Valid	Single	17.8
	Living with a partner, not married	19.5
	Married	93.0
	Married but separated	94.4
	Divorced	97.5
	Widowed	100.0
	Total	

**Which best describes your ethnic background**

		Frequency	Percent	Valid Percent
Valid	Aboriginal/ Torres Strait Islander	4	.5	.5
	Asia (including India, Sri Lanka, Pakistan, etc.)	372	43.6	43.6
	Pacific Island	40	4.7	4.7

## THE CATHOLIC MARIAN SPIRITUALITY SCALE

Western Europe (Italy, France, Spain, etc.)	42	4.9	4.9
Eastern Europe (Russia, Ukraine, Poland, etc.)	46	5.4	5.4
Anglo – Celtic ( UK, Ireland & Scotland)	53	6.2	6.2
Central and South America (El Salvador, Argentina, Chile, et	28	3.3	3.3
North America(Canada, USA & Mexico)	109	12.8	12.8
Other Latino (Cuba, Puerto Rico, Dominican Republic, etc.)	5	.6	.6
Africa	55	6.4	6.4
Australia/New Zealand	92	10.8	10.8
Middle East (Israel, Jordan, Palestine, Egypt, Lebanon, etc.	7	.8	.8
Total	853	100.0	100.0

### Which best describes your ethnic background

		Cumulative Percent
Valid	Aboriginal/ Torres Strait Islander	.5
	Asia (including India, Sri Lanka, Pakistan, etc.)	44.1
	Pacific Island	48.8
	Western Europe (Italy, France, Spain, etc.)	53.7
	Eastern Europe (Russia, Ukraine, Poland, etc.)	59.1
	Anglo – Celtic ( UK, Ireland & Scotland)	65.3

## THE CATHOLIC MARIAN SPIRITUALITY SCALE

Central and South America (El Salvador, Argentina, Chile, et	68.6
North America(Canada, USA & Mexico)	81.4
Other Latino (Cuba, Puerto Rico, Dominican Republic, etc.)	81.9
Africa	88.4
Australia/New Zealand	99.2
Middle East (Israel, Jordan, Palestine, Egypt, Lebanon, etc.	100.0
Total	

**Please select the level of your education:**

	Frequency	Percent	Valid Percent
Valid Not finished primary school	4	.5	.5
Primary school	6	.7	.7
Not finished High school	27	3.2	3.2
High School	152	17.8	17.8
TAFE/Diploma	135	15.8	15.8
Vocational training/apprenticeship	41	4.8	4.8
Undergraduate degree (BA, BSc, etc.)	316	37.0	37.0
Post-Graduate degree (MA, PhD, etc.)	172	20.2	20.2
Total	853	100.0	100.0

## THE CATHOLIC MARIAN SPIRITUALITY SCALE

		Cumulative Percent
Valid	Not finished primary school	.5
	Primary school	1.2
	Not finished High school	4.3
	High School	22.2
	TAFE/Diploma	38.0
	Vocational training/apprenticeship	42.8
	Undergraduate degree (BA, BSc, etc.)	79.8
	Post-Graduate degree (MA, PhD, etc.)	100.0
	Total	

### Occupation

		Frequency	Percent	Valid Percent
Valid	Accountant	19	2.2	2.2
	Housewife/Home maker	159	18.6	18.6
	Manager	66	7.7	7.7
	Nursing & Midwifery professionals	61	7.2	7.2
	Medical doctors	19	2.2	2.2
	Technicians & associate professionals	97	11.4	11.4
	Elementary occupation	161	18.9	18.9
	Retired	83	9.7	9.7
	Social worker	4	.5	.5

## THE CATHOLIC MARIAN SPIRITUALITY SCALE

Student	66	7.7	7.7
Teaching professionals	62	7.3	7.3
Self employed	27	3.2	3.2
Service & Sales worker	22	2.6	2.6
Unemployed	7	.8	.8
<b>Total</b>	<b>853</b>	<b>100.0</b>	<b>100.0</b>

### Occupation

		Cumulative Percent
Valid	Accountant	2.2
	Housewife/Home maker	20.9
	Manager	28.6
	Nursing & Midwifery professionals	35.8
	Medical doctors	38.0
	Technicians & associate professionals	49.4
	Elementary occupation	68.2
	Retired	78.0
	Social worker	78.4
	Student	86.2
	Teaching professionals	93.4
	Self employed	96.6
	Service & Sales worker	99.2
	Unemployed	100.0

THE CATHOLIC MARIAN SPIRITUALITY SCALE

Total	
-------	--

**Reliability Statistics**

Cronbach's Alpha	N of Items
.920	10

**Reliability Statistics**

Cronbach's Alpha	N of Items
.917	9

**Reliability Statistics**

Cronbach's Alpha	N of Items
.798	4

**Reliability Statistics**

Cronbach's Alpha	N of Items
.955	4

**Factor Analysis**

**Total Variance Explained**

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings	
	Total	% of Variance	Cumulative %	Total	% of Variance
1	12.423	46.012	46.012	12.423	46.012
2	2.906	10.763	56.775	2.906	10.763

THE CATHOLIC MARIAN SPIRITUALITY SCALE

3	1.488	5.512	62.287	1.488	5.512
4	1.087	4.026	66.313	1.087	4.026
5	.904	3.349	69.662		
6	.807	2.990	72.652		
7	.725	2.685	75.337		
8	.637	2.360	77.697		
9	.586	2.170	79.867		
10	.546	2.022	81.889		
11	.522	1.932	83.821		
12	.495	1.833	85.654		
13	.475	1.759	87.414		
14	.442	1.637	89.051		
15	.418	1.548	90.598		
16	.386	1.429	92.028		
17	.379	1.405	93.433		
18	.346	1.282	94.715		
19	.334	1.236	95.951		
20	.284	1.052	97.004		
21	.274	1.014	98.017		
22	.262	.970	98.988		
23	.255	.943	99.930		
24	.008	.029	99.959		
25	.007	.027	99.986		
26	.003	.009	99.996		
27	.001	.004	100.000		



THE CATHOLIC MARIAN SPIRITUALITY SCALE

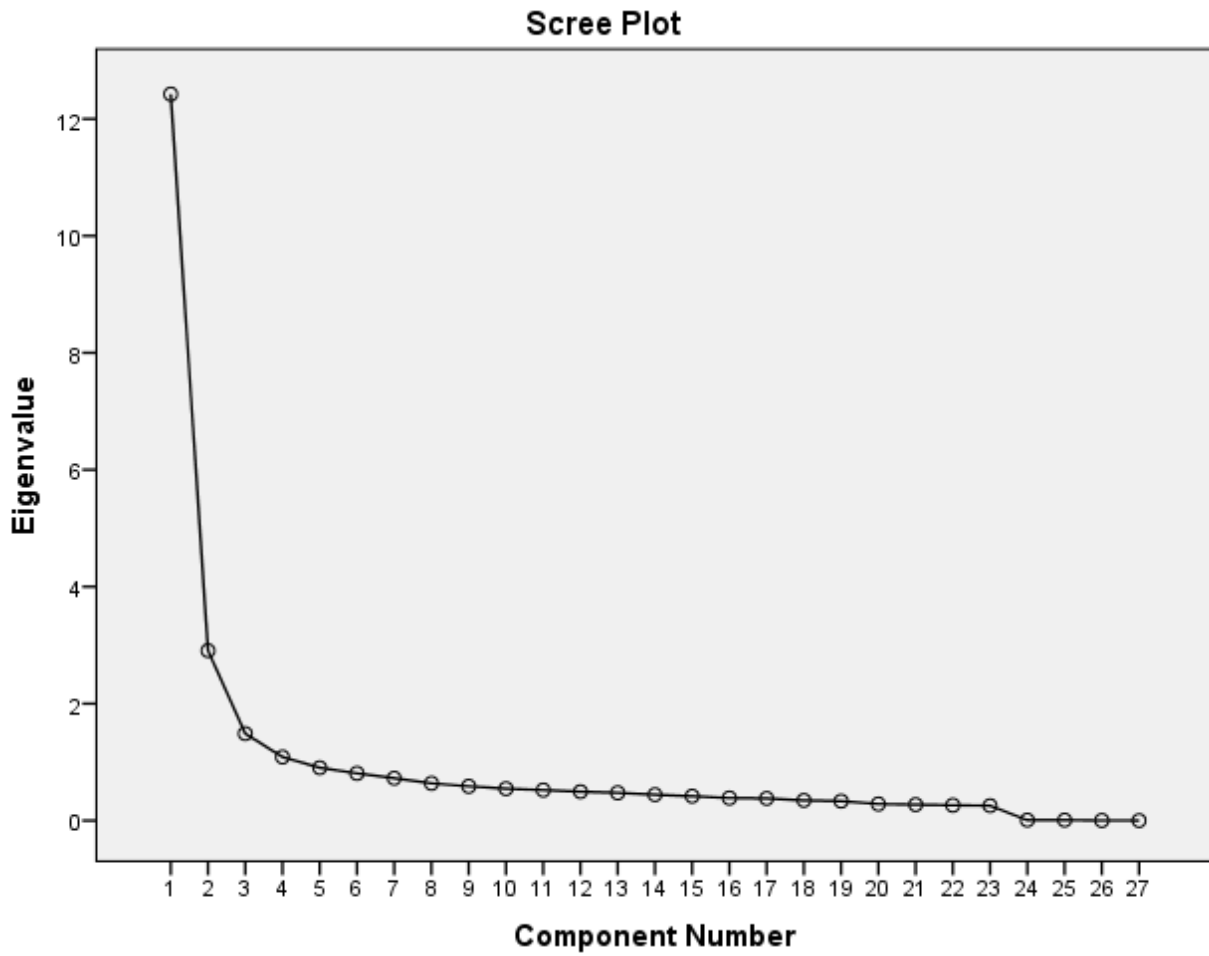
**Total Variance Explained**

Component	Extraction Sums of Squared Loadings	Rotation Sums of Squared Loadings		
	Cumulative %	Total	% of Variance	Cumulative %
1	46.012	5.538	20.512	20.512
2	56.775	5.472	20.266	40.778
3	62.287	4.117	15.248	56.026
4	66.313	2.778	10.287	66.313
5				
6				
7				
8				
9				
10				
11				
12				
13				
14				
15				
16				
17				
18				
19				
20				

# THE CATHOLIC MARIAN SPIRITUALITY SCALE

21				
22				
23				
24				
25				
26				
27				

Extraction Method: Principal Component Analysis.



THE CATHOLIC MARIAN SPIRITUALITY SCALE

Rotated Component Matrix<sup>a</sup>

	Component			
	1	2	3	4
3. Visiting Shrines of the Blessed Virgin Mary strengthens my love for her.	.756	.212	.183	-.016
5. My participation in the prayers of the Church, in honour of Mary (e.g., feasts, novenas, and rosary), deepens my love for her.	.730	.307	.243	.104
7. I am interested in reading Marian literature (writings about Mary) to deepen my knowledge of the Blessed Virgin Mary.	.693	.176	.318	.111
15. I am interested in wearing a scapular and/or medals with the Blessed Virgin Mary's image on them.	.678	.214	.220	.108
24. I try to look at all the events of my life through the eyes of the Blessed Virgin Mary.	.625	.375	.286	.074
1. I am interested in praying Marian prayers daily ("Holy Rosary", "Hail Holy Queen", "Memorare - remember O Mother", etc.).	.620	.420	.128	.088
11. I deepen my devotion to the Blessed Virgin Mary by singing hymns in her honour.	.610	.188	.432	.017
27. I try to imitate the virtues of the Blessed Virgin Mary (faith, hope and love) in my daily life.	.594	.219	.508	-.099

## THE CATHOLIC MARIAN SPIRITUALITY SCALE

16. Seeing the Blessed Virgin Mary in art helps me to think about her life.	.558	.243	.270	.206
8. I seek the Blessed Virgin Mary's intercession in all my needs.	.546	.339	.465	.063
25. The Blessed Virgin Mary is a model for living the teachings of the Bible.	.167	.820	.211	.134
26. The Blessed Virgin Mary was filled with the Holy Spirit throughout her life.	.166	.814	.215	.131
19. The Blessed Virgin Mary is not a person of the Holy Trinity.	.397	.688	.213	.132
9. Like the Apostle John, I have received the Blessed Virgin Mary into my life as my spiritual mother.	.223	.671	.108	.353
21. The Blessed Virgin Mary leads me to her Son, Jesus, telling me, "Do whatever he tells you."	.288	.670	.086	.197
18. The Blessed Virgin Mary recognizes that it is the Almighty God who has done great things for her.	.265	.646	.135	.157
22. Jesus performed his first miracle at the wedding of Cana by the intercession of the Blessed Virgin Mary.	.364	.607	.237	.109
2. The Blessed Virgin Mary surrendered her life to God saying, "Behold the handmaid of the Lord; be it done to me according to Thy word".	.318	.590	.080	.262
23. Blessed Mary stood at the	.408	.546	.237	.176

THE CATHOLIC MARIAN SPIRITUALITY SCALE

foot of the Cross and is a model for offering forgiveness through Jesus.				
6. I try to imitate the Blessed Virgin Mary's compassion by listening patiently to others when they tell me their problems.	.386	.183	.875	.102
13. The more I love Mary, the more I love the Church.	.387	.183	.875	.102
10. I try to imitate the Blessed Virgin Mary by keeping my mind and heart pure.	.389	.180	.874	.102
14. My spiritual union with the Blessed Virgin Mary helps me to share Christ's love with those in need (like visiting the sick, volunteering my time and sharing my resources).	.296	.406	.622	.047
17. The Blessed Virgin Mary's Assumption into heaven gives me hope that I can be united with God forever in heaven.	.100	.153	-.026	.933
20. I honour the Virgin Mary as the Mother of God.	.100	.159	-.023	.932
12. The Blessed Virgin Mary is not equal to or greater than God but only His creature.	.088	.326	.232	.576
4. Attending the Mass is more important than praying the Rosary	-.031	.351	.119	.465

Extraction Method: Principal Component Analysis.

Rotation Method: Varimax with Kaiser Normalization.<sup>a</sup>

a. Rotation converged in 7 iterations.

THE CATHOLIC MARIAN SPIRITUALITY SCALE

**Group Statistics**

	What is your gender	N	Mean	Std. Deviation	Std. Error Mean
Liturgical	Male	420	5.9388	1.03289	.05040
	Female	433	5.8573	.94443	.04539
Biblical	Male	420	6.4272	.85100	.04152
	Female	433	6.5479	.64496	.03099
Ecclesial	Male	420	5.9542	1.18001	.05758
	Female	433	5.8839	1.04898	.05041
Christocentric	Male	420	6.1982	1.10778	.05405
	Female	433	6.2927	.96310	.04628

**Independent**

		Levene's Test for Equality of Variances		
		F	Sig.	t
Liturgical	Equal variances assumed	1.791	.181	1.204
	Equal variances not assumed			1.202
Biblical	Equal variances assumed	7.288	.007	-2.337
	Equal variances not assumed			-2.328
Ecclesial	Equal variances assumed	2.756	.097	.919
	Equal variances not assumed			.918
Christocentric	Equal variances assumed	3.042	.081	-1.331
	Equal variances not assumed			-1.328

THE CATHOLIC MARIAN SPIRITUALITY SCALE

**Appendix 12: Correlation analysis and Descriptive analysis for the Main Study**

**Correlations**

**Correlations**

		Liturgical	Biblical	Ecclesial	Christocentric
Liturgical	Pearson Correlation	1	.708**	.760**	.300**
	Sig. (2-tailed)		.000	.000	.000
	N	853	853	853	853
Biblical	Pearson Correlation	.708**	1	.578**	.520**
	Sig. (2-tailed)	.000		.000	.000
	N	853	853	853	853
Ecclesial	Pearson Correlation	.760**	.578**	1	.263**
	Sig. (2-tailed)	.000	.000		.000
	N	853	853	853	853
Christocentric	Pearson Correlation	.300**	.520**	.263**	1
	Sig. (2-tailed)	.000	.000	.000	
	N	853	853	853	853

\*\* . Correlation is significant at the 0.01 level (2-tailed).

# THE CATHOLIC MARIAN SPIRITUALITY SCALE

## Descriptives

### Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation
Liturgical	853	1.00	7.00	5.8974	.98923
Biblical	853	1.00	7.00	6.4885	.75546
Ecclesial	853	1.00	7.00	5.9185	1.11532
Christocentric	853	1.00	7.00	6.2462	1.03733
Valid N (listwise)	853				



## THE CATHOLIC MARIAN SPIRITUALITY SCALE

### **Appendix 13: Ethics Approval for the Main Study**

Res Ethics <Res.Ethics@acu.edu.au>;

Susanna Gorman <Susanna.Gorman@acu.edu.au>;

Dear Applicant,

Principal Investigator: Dr Eric Marx

Student Researcher: Mr John Vayalilkarottu (HDR student(Ethics Register Number: 2014 106Q)

Project Title: The Catholic Marian Spirituality Scale: Conceptualization, Measurement And Empirical Validation

Risk Level: Low Risk

Date Approved: 23/05/2014

Ethics Clearance End Date: 31/10/2014

This email is to advise that your application has been reviewed by the Australian Catholic University's Human Research Ethics Committee and confirmed as meeting the requirements of the National Statement on Ethical Conduct in Human Research.

This project has been awarded ethical clearance until 31/10/2014. In order to comply with the National Statement on Ethical Conduct in Human Research, progress reports are to be submitted on an annual basis. If an extension of time is required researchers must submit a progress report.

Whilst the data collection of your project has received ethical clearance, the decision and authority to commence may be dependent on factors beyond the remit of the ethics review process. The Chief Investigator is responsible for ensuring that appropriate permission letters are obtained, if relevant, and a copy forwarded to ACU HREC before any data collection can occur at the specified organisation. Failure to provide permission letters to ACU HREC before data collection commences is in breach of the National Statement on Ethical Conduct in Human Research and the Australian Code for the Responsible Conduct of Research. Further, this approval is only valid as long as approved procedures are followed.

If you require a formal approval certificate, please respond via reply email and one will be issued.

Decisions related to low risk ethical review are subject to ratification at the next available Committee meeting. You will be contacted should the Committee raises any additional questions

## THE CATHOLIC MARIAN SPIRITUALITY SCALE

or concerns.

Researchers who fail to submit a progress report may have their ethical clearance revoked and/or the ethical clearances of other projects suspended. When your project has been completed please complete and submit a progress/final report form and advise us by email at your earliest convenience. The information researchers provide on the security of records, compliance with approval consent procedures and documentation and responses to special conditions is reported to the NHMRC on an annual basis. In accordance with NHMRC the ACU HREC may undertake annual audits of any projects considered to be of more than low risk.

It is the Principal Investigators / Supervisors responsibility to ensure that:

1. All serious and unexpected adverse events should be reported to the HREC with 72 hours.
2. Any changes to the protocol must be approved by the HREC by submitting a Modification Form prior to the research commencing or continuing.
3. All research participants are to be provided with a Participant Information Letter and consent form, unless otherwise agreed by the Committee.

For progress and/or final reports, please complete and submit a Progress / Final Report form:

[http://www.acu.edu.au/research/support\\_for\\_researchers/human\\_ethics/forms](http://www.acu.edu.au/research/support_for_researchers/human_ethics/forms)

For modifications to your project, please complete and submit a Modification form:

[http://www.acu.edu.au/research/support\\_for\\_researchers/human\\_ethics/forms](http://www.acu.edu.au/research/support_for_researchers/human_ethics/forms)

Researchers must immediately report to HREC any matter that might affect the ethical acceptability of the protocol eg: changes to protocols or unforeseen circumstances or adverse effects on participants.

Please do not hesitate to contact the office if you have any queries.

Kind regards,  
Kylie Pashley  
on behalf of ACU HREC Chair, Dr Nadia Crittenden

Ethics Officer | Research Services  
Office of the Deputy Vice Chancellor (Research)  
Australian Catholic University

## THE CATHOLIC MARIAN SPIRITUALITY SCALE

### Appendix 14: Ethics Approval for the Pilot Study

Stefania Riccardi <Stefania.Riccardi@acu.edu.au>

on behalf of

Res Ethics <Res.Ethics@acu.edu.au>

Tue 28/05/2013 2:24 AM

**To:**

Eric Marx <Eric.Marx@acu.edu.au>;

John Vayalilkarottu;

Dear Applicant,

Principal Investigator: Dr Eric Stephen Marx Student Researcher: Fr John Vayalilkarottu  
Ethics Register Number: 2012 322Q Project Title: The Catholic Marian Spirituality Scale: Conceptualization, Measurement and Empirical Validation.  
Risk Level: Low Risk 2  
Date Approved: 24/05/2013  
Ethics Clearance End Date: 31/08/2013

This email is to advise that your application has been reviewed by the Australian Catholic University's Human Research Ethics Committee and confirmed as meeting the requirements of the National Statement on Ethical Conduct in Human Research.

This project has been awarded ethical clearance until 31/08/2013. In order to comply with the National Statement on Ethical Conduct in Human Research, progress reports are to be submitted on an annual basis. If an extension of time is required researchers must submit a progress report.

Whilst the data collection of your project has received ethical clearance, the decision and authority to commence may be dependent on factors beyond the remit of the ethics review process. For example, your research may need ethics clearance or permissions from other organisations to access staff. Therefore the proposed data collection should not commence until you have satisfied these requirements.

If you require a formal approval certificate, please respond via reply email and one will be

## THE CATHOLIC MARIAN SPIRITUALITY SCALE

issued.

Decisions related to low risk ethical review are subject to ratification at the next available Committee meeting. You will only be contacted again in relation to this matter if the Committee raises any additional questions or concerns.

Researchers who fail to submit an appropriate progress report may have their ethical clearance revoked and/or the ethical clearances of other projects suspended. When your project has been completed please complete and submit a progress/final report form and advise us by email at your earliest convenience. The information researchers provide on the security of records, compliance with approval consent procedures and documentation and responses to special conditions is reported to the NHMRC on an annual basis. In accordance with NHMRC the ACU HREC may undertake annual audits of any projects considered to be of more than low risk.

It is the Principal Investigators / Supervisors responsibility to ensure that:

1. All serious and unexpected adverse events should be reported to the HREC with 72 hours.
2. Any changes to the protocol must be approved by the HREC by submitting a Modification Form prior to the research commencing or continuing.
3. All research participants are to be provided with a Participant Information Letter and consent form, unless otherwise agreed by the Committee.

For progress and/or final reports, please complete and submit a Progress / Final Report form:  
[www.acu.edu.au/465013](http://www.acu.edu.au/465013)

For modifications to your project, please complete and submit a Modification form:  
[www.acu.edu.au/465013](http://www.acu.edu.au/465013)

Researchers must immediately report to HREC any matter that might affect the ethical acceptability of the protocol eg: changes to protocols or unforeseen circumstances or adverse effects on participants.

Please do not hesitate to contact the office if you have any queries.

Kind regards,  
Stefania Riccardi

Ethics Officer | Research Services  
Office of the Deputy Vice Chancellor (Research) Australian Catholic University