How do mature age Australians cope with difficult life events?

July 2015

Productive Ageing Centre

National Seniors Australia

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About National Seniors Productive Ageing Centre

National Seniors Australia (National Seniors) is a not-for-profit organisation that gives voice to issues that affect Australians aged 50 years and over. It is the largest membership organisation of its type in Australia with more than 200,000 members and is the fourth largest in the world.

National Seniors Productive Ageing Centre (NSPAC) is an initiative of National Seniors and the Australian Government. NSPAC's aim is to improve quality of life for people aged 50 and over by advancing knowledge and understanding of all aspects of productive ageing.

NSPAC's key objectives are to:

- Support quality consumer-oriented research informed by the experience of people aged 50 and over
- Inform government, business and the community on productive ageing across the life course
- Raise awareness of research findings that are useful for older people
- Be a leading centre for research, education and information on productive ageing in Australia.

For more information visit productiveageing.com.au or call 03 9296 6800.

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Executive Summary

Background and purpose

As people age they are more likely to encounter various types of life events such as the deaths of loved ones or personal injury or illnesses. These types of events can have a major impact on their self-esteem, on their life satisfaction and their quality of life. However, knowing how to effectively cope with these difficult life-changing circumstances can lessen the impact they have on one's health and wellbeing. Therefore, this study explored the various types of difficult life events experienced by mature age Australians and the coping strategies they used to deal with these events. It also explored the extent of help and support received from various people or organisations to help them cope with difficult life events. The study also sought to better understand positive outcomes for people who have experienced difficult life events.

Data and methods

This study used data from the National Seniors Social Survey Wave 4 that was conducted from 29 November 2014 to 2 January 2015. A total of 1923 adults aged 50 years or over participated in the survey. The survey gathered data from participants relating to their health, finances, social wellbeing, as well as basic demographic and socio-economic information. For the purpose of this study, the survey also contained a module on life events, which collected data relating to participants experiences of difficult life events, the various coping strategies (including religious coping methods) that they used, other help and support they received and the positive outcomes that they may have experienced.

Results

The results indicated that, on average, mature age Australians experienced four major difficult life events. The most frequently experienced life events were deaths of a family member or close friend, retirement from work, changes in the health of a family member, personal injury or illnesses, changes in financial state, and divorce. Regarding coping strategies, mature age Australians made more use of adaptive coping strategies and less use of maladaptive coping strategies. In particular, slightly more than half of mature age Australians made use of at least one type of a religious or spiritual coping method, such as praying or attending church/mosque/synagogue. A very high proportion (over 80%) reported receiving help and support from someone close to them such as their partner/spouse, parents or relatives. Friends, work colleagues, and neighbours were the next group most likely to support mature age people to deal with difficult life events.

The majority of mature age Australians who had experienced one or more life events reported at least one positive outcome from their experience. For example, they learned to work through problems and not just give up, they learned to be open to new information and ideas and they also learned that it was OK to ask others for help. The factors that were found to contribute significantly to stress-related growth were gender, age, education, the use of coping strategies, religious coping, and the number of different types of help and support received.

Conclusion

In summary, this study helps us to better understand the types of difficult life events that are encountered by mature age Australians and how they managed to cope. Understanding how people cope with changing life circumstances that are often unexpected and challenging can help to identify those who are in need of further assistance so that they are not left feeling socially isolated. Furthermore, helping or encouraging people to gain access to the right kind of services at the right time will support people to maintain a productive, balanced lifestyle.

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How do mature age Australians cope with difficult life events?

Introduction

Background

Australia has an ageing population, with 14% or 3.3 million people aged 65 years and over in 2013. This figure is projected to increase to 21% (8.3 million people)[1] by 2053. As people age, they are more likely to experience some difficult life events, such as illness and the death of a spouse or other family members. The ability of people to cope with difficult life events can directly determine their quality of life. Knowing the kinds of difficult events that people are likely to encounter and the strategies they use to cope can help to identify those population groups that are most in need of assistance and can help to inform healthcare professionals and others in the health system.

Difficult life events can have a profound impact on every aspect of an individuals' life and can affect them spiritually, emotionally, physically and socially.[2] This is because life events involve changes in circumstances and life patterns that can disrupt, threaten or challenge personal wellbeing.[3] The influence of life events on all levels of wellbeing can be felt even after a decade or more.[4] The relationship between life events and mental health problems is well known[5] and stressful life events are also known to increase the risk of depression.[6] According to one study, the most frequently experienced stressful events were related to personal or a family member's health or illness and the death of friends or relatives.[7] The majority of events tend to involve the experience of loss, such as the death of a loved one or divorce.[8] Bereavement is considered one of the major stressful events of midlife.[9]

Having the knowledge about how to cope with the events and having the right resources, services and support can lessen the impact.[10] This is especially the case given that although stressful life events are often unexpected, some people experience them more often than others.[11] Thus, over the past few decades coping strategies have been studied extensively in a number of disciplines such as behavioural science, medicine[12] and especially in psychology.[13] Specifically, the number of coping studies between both the younger and the older populations has increased over the last decade.[14]

1 Australian Institute of Health and Welfare. *Australia's Health 2014*. Australia's health series no. 14. No. AUS 178. Canberra: AIHW, 2014.

2 Pargament, K. I., Ano, G. G., & Wachholtz, A. B. The religious dimension of coping: Advances in theory, research and practice. In *Handbook of the psychology of religion and spirituality* (Paloutzian, R. F., & Park, C. L.), 2005.

3 Ong, F. S., Phillips, D. R., & Chai, S. T. Life events and stress: Do older men and women in Malaysia cope differently as consumers? *Journal of Cross Cultural Gerontology*, 28, 195–210, 2013.

4 Chiriboga, D. A. The measurement of stress exposure in later life. In K. S. Markides & C. L. Cooper (Eds.), *Aging, stress and health*, pp. 13-41. New York: Wiley, 1989; cited in Ong et al. 2013, op. cit.

5 Moloney, L., Weston, R., Qu, L., & Hayes, A. *Families, life events and family service delivery* (Research Report No. 20). Melbourne: Australian Institute of Family Studies, 2012.

6 Moloney et al. 2012, op. cit.; Boerner, K., Wang, S., & Cimarolli, V. R. The impact of functional loss: Nature and implications of life changes. *Journal of Loss and Trauma*, 11, 265–287, 2006.

7 Couto, M. C. P., Koller, S. H., & Novo, R. Stressful life events and psychological well-being in a Brazilian sample of older persons: The role of resilience. *Aging International*, 36, 492–505, 2011.

8 Moloney et al. 2012, *op. cit*.

9 Aldwin, C. M. Stress, coping, and development: An integrative perspective. The Guilford Press: New York, 2007.

10 Moloney et al. 2012, *op. cit*.

11 Moloney et al. 2012, *op. cit*.

12 Folkman, S. & Moskowitz, J. T. Coping: Pitfalls and promise. *Annual Review of Psychology*, 55, 745–774, 2004.

13 Krageloh, C. U. A systematic review of studies using the Brief COPE: Religious coping in factor analyses. *Religions*, 2, 216–246, 2011.

14 Aldwin 2007, *op. cit*.

Recent studies have tended to make use of two types of coping strategies[15], namely adaptive coping strategies[16] and maladaptive coping strategies.[17] As the term implies, adaptive coping strategy tends to be constructive or productive in nature, whereas maladaptive coping strategy tends to be of avoidance nature or even negative. Some examples of the adaptive coping strategies in the survey, included: 'I've been taking action to try to make the situation better'; 'I've been getting emotional support from others'; and 'I've been learning to live with it'. And some examples of maladaptive coping strategies in the survey, included: 'I've been expressing my negative feelings'; 'I've been refusing to believe that it has happened'; and 'I've been using alcohol or other drugs to make myself feel better'.[18]

Religious and spiritual coping methods were of great interest in this report and offer a broad range of coping strategies. These methods include praying, attending church, seeking support from clergy or church members, focusing on God, thinking about spiritual matters and finding a completely new life through religion.[19] The use of religious coping methods is found to be most helpful in situations that are uncontrollable, such as bereavement or serious illnesses.[20] Some religious coping methods such as prayer, meditation, and religious appraisals were found to be associated with better mental and physical health.[21] Positive religious coping is associated with self-esteem, life satisfaction, quality of life and lower rates of depressive symptoms.[22] Many people reported that religion helped them to cope with their stressful situations more often than other coping resources.[23] Frequent use of religious coping as a strategy were found among older rather than younger people[24] and among those experiencing more serious life events.[25]

Various types of serious life events can act as catalysts for personal growth.[26] This type of growth is often referred to as stress-related growth or post-traumatic growth.[27] Growth as a result of stressful experiences has reportedly resulted in an increase in coping skills, an increase in social support, better relationships and enhanced understanding of life views or perspectives.[28] One study also reported that people felt closer to God, became more religious, used more religious coping strategies and became more involved in their religious community.[29]

[15] E.g. Meyer, B. Coping with severe mental illness: Relations of the Brief COPE with symptoms, functioning, and well-being. *Journal of psychopathology and behavioural assessment*, 23(4), 265–277, 2001; Wichianson, J. R., Bughi, S. A., Unger, J. B., Spruijt-Metz, D., Nguyen-Rodriguez, S. T. Perceived stress, coping and night-eating in college students. Stress and Health, 25, 235–240, 2009.

[16] Includes the following subscales from the Brief COPE measure: active coping, planning, use of emotional support, use of instrumental support, positive reframing, acceptance, religion, and humour (Carver, 1997)

[17] Includes the following subscales from the Brief COPE measure: venting, denial, substance use, behavioural disengagement, self distraction, and self blame (Carver, 1997)

[18] Carver, C. S. You want to measure coping but your protocol's too long: Consider the Brief COPE. *International Journal of Behavioural Medicine*, 4(1), 92–100, 1997.

[19] Pargament, K. I., Koenig, H. G., & Perez, L. M. The many methods of religious coping: Development and initial validation of the RCOPE. *Journal of Clinical Psychology*, 56(4), 519–543, 2000.

[20] Fetzer Institute, National Institute on Ageing Working Group. Multidimensional measurement of religiousness, spirituality for use in health research. A report of a National Working Group. Kalamazoo, MI: Fetzer Institute, 2003 and 1999.

[21] Pargament, K. I. *The Psychology of Religion and Coping: Theory, Research, Practice*. New York: The Guilford Press, 1997; cited in Krok, D. The role of spirituality in coping: Examining the relationships between spiritual dimensions and coping styles. *Mental Health, Religion & Culture*, 11(7), 643–653, 2008.

[22] Harrison, M. O., Koenig, H. G., Hays, J. C., Eme-Akwari, A. G., & Pargament, K. I. The epidemiology of religious coping: A review of recent literature. *International Review of Psychiatry*, 13, 86–93, 2001.

[23] Pargament et al. 2000, *op. cit*.

[24] Ferraro, K. F., & Koch, J. R. Religion and health among black and white adults. Examining social support and consolation. *Journal for the Scientific Study of Religion*, 33(4), 362–375, 1994.

[25] Ellison, C. G., & Taylor, R. J. Turning to prayer: Social and situational antecedents of religious coping among African Americans. *Review of Religious Research*, 38(2), 111–131, 1996.

[26] Tedeschi, R. G., & Calhoun, L. G. Posttraumatic growth: Conceptual foundations and empirical evidence. *Psychological Inquiry*, 15(1), 1–18, 2004.

[27] Tedeschi & Calhoun, 2004, *op. cit*.

[28] Paloutzian, R. F., & Park, C. L. *Handbook of the psychology of religion and spirituality*. New York: The Guilford Press, 2013; Folkman, S. & Moskowitz, J. T. Coping: Pitfalls and promise. *Annual Review of Psychology*, 55, 745–774, 2004.

[29] Cole, B. S., Hopkins, C. M., Tisak, J., Steel, J. L., & Carr, B. I. Assessing spiritual growth and spiritual decline following a diagnosis of cancer: reliability and validity of the spiritual transformation scale. *Psycho-Oncology*, 17, 112–121, 2008.

In a number of studies, religiousness, which can be measured as religious coping, was found to be a strong predictor of stress-related growth.[30] It was also suggested that religiousness was related to how individuals thought about their stressful events even after many years had passed.[31] Other predictors of stress-related growth have also been established in other studies and they include the characteristics of the stressor, the demographics, the personality of the person, the social support the person receives and their coping mechanisms.[32] Similarly, a study found that stress-related growth was significantly predicted by religiousness, the satisfaction with the support available, the stressfulness of the event, positive reinterpretation and acceptance coping, and the number of recent positive life events.[33] However, it was highlighted that coping strategies (particularly positive reinterpretation and acceptance) were the strongest predictors of stress-related growth.[34] Furthermore, it was found that stress-related growth scores were higher for women than for men.[35]

While many studies have explored how stressful events contributed to an individual's growth in a number of different populations and for various types of events[36], there has been a lack of research of mature age Australians and how they have grown after experiencing difficult life events. This study aims to improve understanding of how mature age Australians cope with difficult life events and the factors that may predict positive outcomes from having experienced such events. The research questions that this study attempts to answer are:

1. What coping methods do mature age Australians use to deal with difficult life events?
2. What are some of the useful resources that help mature age Australians to cope with difficult events?
3. What are some of the self-reported positive outcomes (also referred to as stress-related growth) for having encountered difficult life events, and what factors predict stress related growth?

[30] Shaw, A., Joseph, S., & Linley, P. A. Religion, spirituality, and posttraumatic growth: A systematic review. *Mental Health, Religion, and Culture*, 8(1), 1–11, 2005.

[31] Park, C. L. Exploring relations among religiousness, meaning, and adjustment to lifetime and current stressful encounters in later life. *Anxiety, Stress, and Coping*, 19(1), 33–45, 2006.

[32] Aldwin 2007, op. cit.

[33] Park, C. L., Cohen, L. H., & Murch, R. L. Assessment and prediction of stress-related growth. *Journal of Personality*, 64(1), 71–105, 1996.

[34] Park, C. L., Cohen, L. H., & Murch, R. L, *op.cit*.

[35] Park et al. 1996, *op. cit*.

[36] e.g. Park et al. 1996, *op. cit*.; Shaw et al. 2005, *op. cit*.; Park, C. L., Mills-Baxter, M. A., & Fenster, J. R. Post-Traumatic growth from life's most traumatic event: Influences on elders' current coping and adjustment. *Traumatology*, 11(4), 297–306, 2005; Caserta, M., Lund, D., Utz, R., & Vries, B. Stress-related growth among the recently bereaved. *Aging & Mental Health*, 13(3), 463–476, 2009.

Data and methods

The National Seniors Social Survey Wave 4 (NSSS4) was conducted from 29 November 2014 to 2 January 2015. Participants were members of NSA aged 50 years and over. A total of 10,000 members were selected and invited to participate in the survey. Of these 1,594 respondents who participated in NSSS Wave 3 in 2013, who indicated in that survey they would like to participate in future waves of the survey and whose membership number was in the NSA membership database, were invited to complete the Wave 4 survey. The remaining 8,406 respondents who were invited were selected from the NSA membership database. Stratification of the sample was done by age, gender and state/territory to form 48 strata (three age groups x two gender x eight states/territories). The number of respondents allocated to each strata was calculated proportionally to reflect the estimated resident population in Australia aged 50 years and over as at June 2013. Respondents within each stratum were randomly selected from the NSA membership database. Selection was performed so that no two members from the same household were chosen.

At the end of November 2014, a paper survey was mailed to the selected members. They were asked to complete the survey and return it by 2 January 2015. Respondents were given the option of completing the questionnaire online or using the paper format. A total of 1,923 surveys were received and the data entered, resulting in a response rate of 19%.

Survey weights were applied to each combination of age, gender and state/territory, to adjust for differences in response rates by these population groups and to make the results representative of the Australian population aged 50 years and over. The Bellberry Human Research Ethics Committee approved the survey.

The survey asked participants to respond to a series of questions that covered the three main aspects of wellbeing (financial, health, and social wellbeing), their experiences of difficult life events, their career planning activities and their lifelong learning aspirations. Other demographic and socio economic questions were also included. However, this report focuses only on findings in the life events module. This module contained questions about the types of difficult life events ever experienced, the use of coping strategies, the help or support received and the types of positive outcomes experienced as a result of the events. There were 12 items that assessed the use of religion or spirituality as a way of coping with difficult life events (Appendix C).

There were 15 items that assessed the outcomes of having experienced difficult life events, and this was referred to as stress-related growth (SRG). The possible responses for these items were ‘not at all’, ‘somewhat’, and ‘a great deal’. Each of the 15 items had a minimum score of one and a maximum score of three. The total SRG score was obtained by summing the individual scores from the 15 items that measured SRG. Hence the maximum score of the SRG scale was $15 \times 3 = 45$. A high score on this scale indicated a high level of positive outcome.

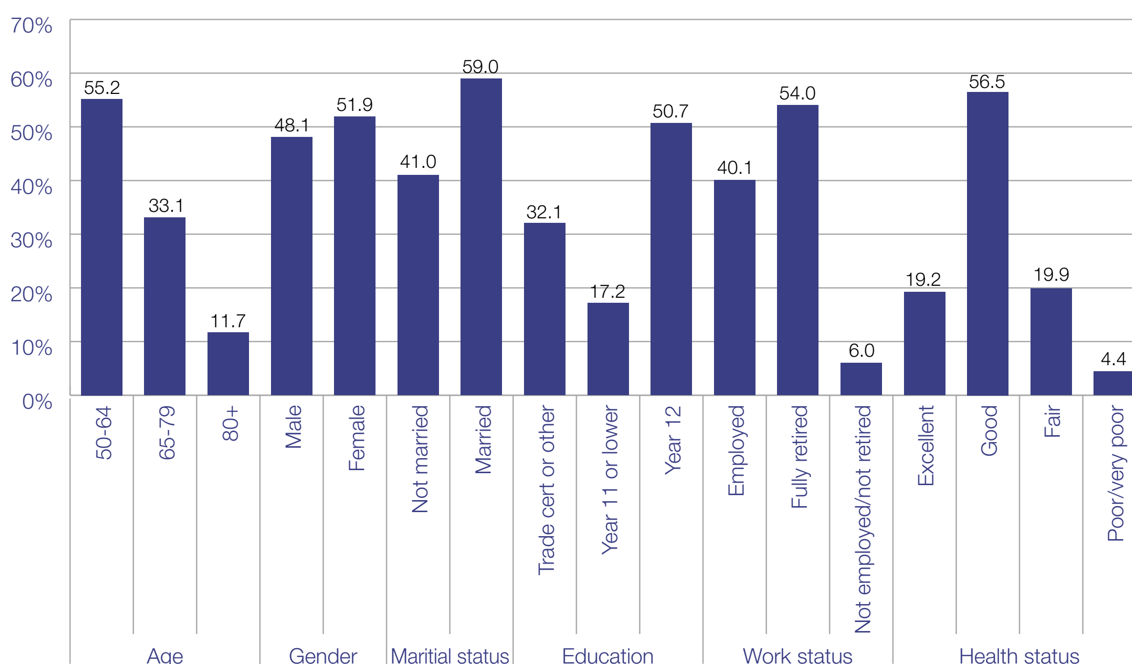
Exploratory analysis and tests of significance were conducted to assess significant differences among various variables such as age, sex, marital status and difficult life events. Independent two sample t tests were conducted to assess the mean differences of adaptive and maladaptive coping strategies for various variables. A multiple linear regression analysis was conducted to identify the factors that predicted stress-related growth.

Results

Basic characteristics of mature age Australians

The majority of respondents in the survey were aged between 50 and 64 years (55%), with the proportion of females slightly higher than males (52% and 48%, respectively). A very high proportion were married (59%), had completed high school (51%), had fully retired (54%) and were in good health (57%) (*Figure 1*).

Figure 1: *Proportion (%) of mature age people with basic demographic characteristics*



Note: Results are based on weighted percentage

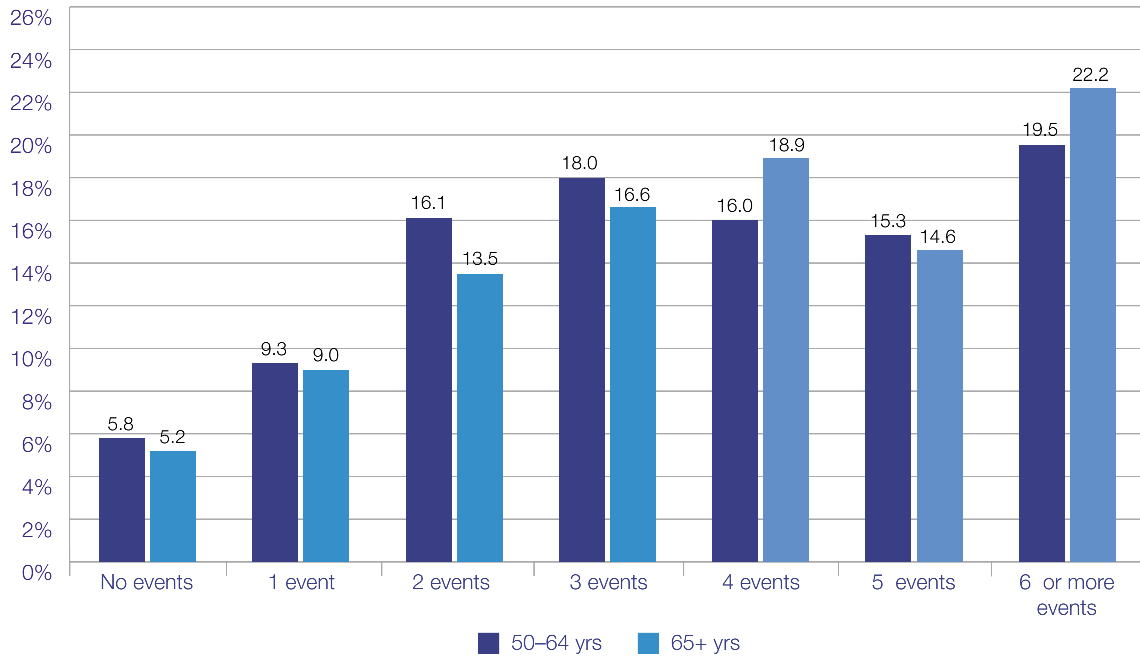
Experiences of difficult life events

Participants reported a mean of 3.8 difficult life events (*SD*=2.2) experienced in their lives so far. Half of all respondents indicated that they experienced three, four or five difficult life events. Nearly 25% had experienced one or two difficult life events, 21% had more than five events and only 6% indicated that they had not experienced any difficult life events (data not shown).

The proportion of respondents who had experienced two or three events was higher in the 50–64 age group than in the 65 and over age group. On the other hand, more people in the 65 and over age group experienced four events or six or more events compared with those in the 50–64 age group (*Figure 2*).

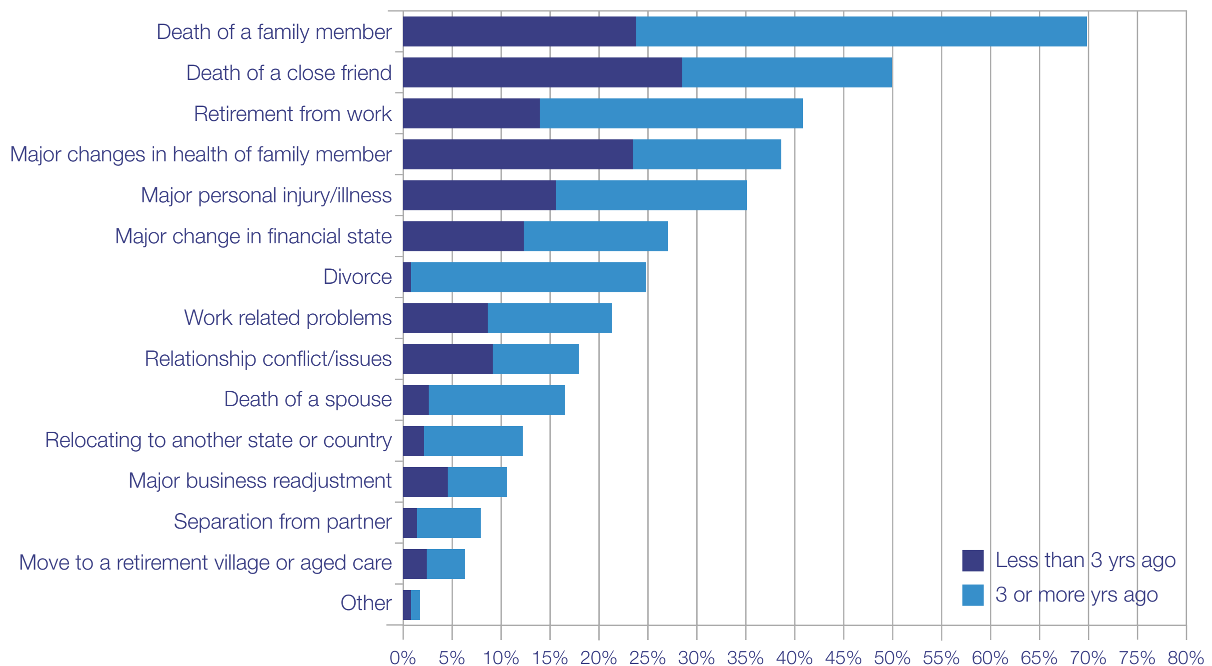
The most frequently reported types of difficult life events experienced (*Figure 3*) were death of a family member or a friend (70% and 50%, respectively), followed by retirement from work (41%), change in health of a family member (39%) and major personal illness (35%). The majority of those who experienced death of a family member had experienced this three or more years ago (46%). Similarly, the majority of those who either experienced retirement, personal injury/illness, or divorce had experienced these events three or more years ago. However, most of those who had experienced the death of a close friend and those who experienced major changes in the health of a family member had experienced these events within the last three years (*Figure 3*).

Figure 2: *Proportion (%) of mature age people and the number of difficult life events ever experienced (in the two surveyed age groups)*



Note: Results are based on weighted percentage

Figure 3: *Proportion (%) of mature age people experiencing difficult life events and the time since those events occurred*



Note 1: Results are based on weighted percentage

Note 2: The remaining proportion for each life event are made up of the categories 'can't say, not applicable, or missing', so the total should sum to 100

Females were significantly more likely to report having experienced deaths, relationship issues, injury or illnesses, and adverse change in financial state compared to males. On the other hand, males were more likely to report the events relating to work and retirement (*Table 1)*.

There were significant differences between the 65 and over and the 50–64 age groups in the categories related to work, retirement, moved to a retirement village and adverse change in financial state. Specifically, those in the younger age group were more likely to report work-related problems and change in financial state, whereas those in the older age group were more likely to report retirement and having moved to a retirement village as difficult life events. Relationship issues and experiencing adverse changes in financial state were significantly more likely to be reported as difficult life events by those who did not complete high school (*Table 1*).

There were significant differences in reporting of difficult life events between those who were employed and those not employed. These differences were significant in all categories except for deaths and adverse change in financial state. Specifically, those who were employed were more likely to report relationship issues and work-related problems. On the other hand, those not employed reported a higher proportion of personal injury/illnesses and retirement as major events (Table 1).

Not surprisingly, a very high proportion of those who had fair or poor/very poor health had experienced personal injury/illness or adverse change in financial state compared with those who were in excellent/good health ($p<.001$). Those who were not married reported a significantly higher proportion of deaths, relationship issues and moving to a retirement village or aged care as difficult life events compared with those who were married. Those who were married reported a significantly higher proportion of work-related problems. Those who earned $40,000 or more reported a significantly higher proportion of work-related problems. However, those with a lower personal income (less than $40,000) reported a significantly higher proportion of events relating to retirement and adverse change in financial state (*Table 1*).

__Table 1:__ Proportion (%) of respondents who experienced difficult life events by basic demographic characteristics

	Deaths	Relationship issues	Injury or illnesses	Work-related problems	Retirement	Moved to a retirement village	Adverse change in financial state
Gender							
Male	83.9	33.2	57.6	34.0	45.8	17.8	26.1
Female	87.4*	42.8***	63.1*	24.0***	40.6*	19.7	30.9*
Age							
50–64 years	84.7	39.7	60.4	36.6	30.9	16.0	32.4
65 years or older	87.0	36.3	60.5	19.2***	58.0***	22.2**	23.9***
Education							
Completed year 12	84.4	35.8	60.7	30.0	45.7	17.1	26.2
Did not complete year 12	87.3	40.7*	60.7	27.8	40.5*	20.1	31.5*
Employment status							
Employed	87.4	43.3	56.6	36.8	10.4	14.4	30.4
Not employed	84.6	34.9**	63.0*	23.6***	64.3***	21.6***	27.4
Self-rated health							
Excellent/good health	86.6	37.4	54.0	28.4	43.0	19.0	24.9
Fair/Poor/Very poor health	82.9	40.5	80.7***	30.7	43.9	18.1	39.8***
Marital status							
Not married	88.6	55.0	62.4	25.1	44.1	23.1	30.4
Married	83.5**	26.0***	59.0	31.4**	42.4	15.5***	27.3
Personal income							
Less than $40 000	84.9	37.2	62.0	26.1	53.7	21.5	36.7
$40 000 or more	87.4	40.5	58.5	32.4*	33.3***	16.2*	22.7***
Total	86.2	39.0	60.2	29.4	42.9	18.7	29.3

Note 1: Results are based on weighted percentage

Note 2: Proportion was based on experiences of difficult life events at any time in life (i.e. no restriction applied as to when events occurred)

Deaths include deaths of spouse, family member, or close friend; relationship issues include relationship conflict/issues, divorce, or separation; Injury or illnesses include personal injury or illnesses and change in health or behaviour of family member; work-related problems includes business readjustment; moved to a retirement village includes aged-care facilities and relocating to another state or country

*significantly different from reference group ($p<.05$)

**significantly different from reference group ($p<.01$)

***significantly different from reference group ($p<.001$)

The use of adaptive and maladaptive coping strategies

The 28 items of different coping strategies are shown in Appendix A. These 28 items are further grouped into two broad categories of adaptive coping strategies and maladaptive coping strategies. A brief explanation of the grouping of these two coping strategies is given in Appendix B. The possible scores of adaptive coping strategies range from 1 to 64 and for maladaptive, the scores range from 1 to 40. A high score on these scales indicates a high level of use of the strategies. The mean coping strategies for the adaptive style was 35.8 (*SD*=11.4) and 17.6 (*SD*=6.4) for the maladaptive strategies.

There were significant differences in the mean on the use of both types of coping strategies for gender, age and employment status, but insignificant differences in maladaptive coping between those who completed high school and those who did not (*Table 2*).

Those who described themselves as spiritual or religious or both were significantly more likely to make use of both types of coping strategies when compared with those who were neither religious nor spiritual. At the same time, those who spent time on religious/spiritual practices reported significantly higher use of adaptive coping strategies than those who rarely spent time or did not spend any time at all. Similarly, those who saw religion or spirituality as a source of strength and comfort ‘a great deal’ of the time also reported significantly higher use of adaptive coping strategies than those who did not or only saw religion or spirituality as ‘somewhat’ a source of strength and comfort (*Table 3*).

Table 2: *Mean of adaptive and maladaptive coping strategies by basic demographic variables*

Basic demographics	Adaptive	Maladaptive
Gender		
Male	33.9	16.9
Female	37.5***	18.2***
Age		
50–64 years	36.6	18.6
65+ years	35.2*	16.7***
Education		
Completed Year 12	37.0	17.4
Did not complete Year 12	34.8***	17.9
Employment		
Employed	37.3	18.5
Non-employed	35.0***	17.1***

**significantly different from reference group (p<.05)*
****significantly different from reference group (p<.001)*

Table 3: *Mean of adaptive and maladaptive coping strategies by religiousness*

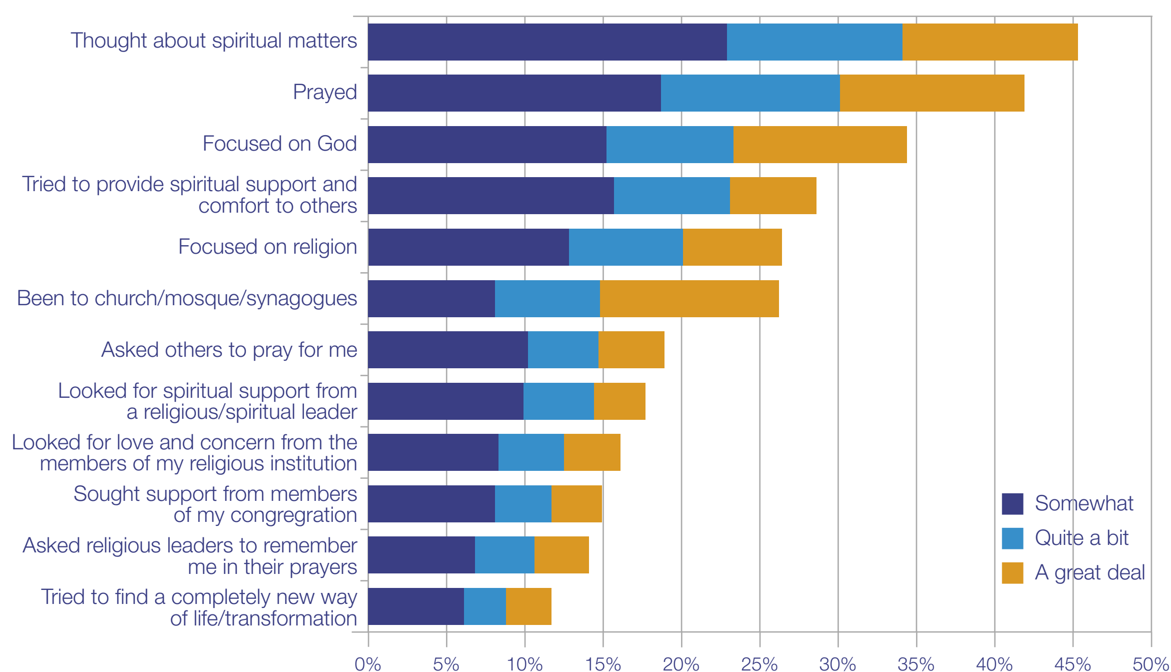
Religiousness	Adaptive	Maladaptive
How one described oneself		
- Spiritual or religious or both	38.0	18.0
- Neither religious nor spiritual	31.8***	16.9**
Spend time on religious/spiritual practices		
- Monthly or occasionally or not at all	35.0	18.3
- Once a week, a few times a week, or daily	40.0***	17.8
Religion or spirituality a source of strength and comfort		
- Somewhat or not at all	35.8	18.5
- A great deal	40.9***	17.5**

**significantly different from reference group (p<.05)*
***significantly different from reference group (p<.01)*
****significantly different from reference group (p<.001)*

The use of religious or spiritual strategies in coping

Overall, the proportion of respondents who made use of at least one method of religious/spiritual coping strategy was slightly higher than those who did not (53% and 47%, respectively; figure not shown). Forty-five per cent of respondents reported that they had thought about spiritual matters and a similar proportion reported using prayer as their way of coping. Thirty-four per cent said that they focused on God, while 29% tried to provide spiritual support and comfort to others. The proportion who focused on religion and those who had been to church/mosque/synagogues were approximately the same (26%) (*Figure 4*).

Figure 4: *Proportion (%) of respondents using religious or spiritual coping strategies*



Note 1: Results is based on weighted percentage
Note 2: The remaining proportion was made up of categories 'Not at all/not applicable, can't say, or missing' so the total should sum to 100

The proportion of females who made use of each of the religious/spiritual coping strategies was significantly higher than males. Fifty-one per cent (51%) of females had thought about spiritual matters whereas only 39% of males had done so. When faced with difficult life events, the older age group (65 years and over) were significantly more likely to focus on religion, had been to church/mosque/synagogues and sought help and support from their religious leaders/congregation/institution. The older age group were also more likely to provide spiritual support and comfort to others (*Table 4*).

Those who were not married were significantly more likely than those who were married to report using the following strategies: finding a completely new way of life or transformation, providing spiritual support and comfort to others, focusing on God and praying and thinking about spiritual matters. Similarly, those who had completed Year 12 were significantly more likely to report using the following strategies: finding a completely new way of life or transformation, looking for love and concern from the members of their religious institution, attending church/mosque/synagogues, focusing on religion, providing spiritual support and comfort to others and thinking about spiritual matters (*Table 4*).

Table 4: *Proportion (%) of respondents using religious or spiritual coping methods either ‘somewhat’, ‘quite a bit’ or ‘a great deal’, by gender, age, marital status, and education*

	Gender		Age		Marital status		Education		
Religious or spiritual ways of coping	Male	Female	50–64 years	65+ years	Not married	Married	Completed Year 12	Did not complete Year12	Total
Tried to find a completely new way of life/ transformation	8.5	14.7***	11.2	12.3	15.3	9.1***	13.6	9.9*	11.8
Asked religious leaders to remember them in their prayers	11.3	16.6**	11.7	17.0**	14.6	13.7	15.8	12.4	14.1
Sought support from members of their congregation	11.2	18.3***	12.1	18.4***	15.1	14.8	16.7	13.3	15.0
Looked for love and concern from the members of their religious institution	13.6	18.4**	13.2	19.8***	16.1	16.2	18.5	13.9*	16.3
Looked for spiritual support from a religious/ spiritual leader	14.6	20.4**	15.6	20.1*	19.5	16.3	18.7	16.8	17.8
Asked others to pray for them	13.8	23.6***	17.7	20.3	20.5	17.7	20.8	17.1	19.0
Been to church, mosque, or synagogues	23.1	28.9**	22.4	30.7***	27.5	25.1	28.9	23.5*	26.3
Focused on religion	23.1	29.6**	23.8	29.7**	28.1	25.3	28.9	24.3*	26.6
Tried to provide spiritual support and comfort to others	23.1	33.6***	25.9	31.9**	32.4	25.8**	32.2	25.1**	28.7
Focused on God	29.0	39.3***	32.6	36.6	37.4	32.3*	36.0	33.1	34.6
Prayed	33.7	49.5***	40.5	43.7	46.1	38.9**	43.7	40.5	42.2
Thought about spiritual matters	38.7	51.0***	45.4	44.7	49.5	41.9**	48.4	42.0*	45.3

Note 1: Results are based on weighted percentage

Note 2: Total respondents are based only on those who had experienced at least one difficult life event

**significantly different from reference group (p<.05)*

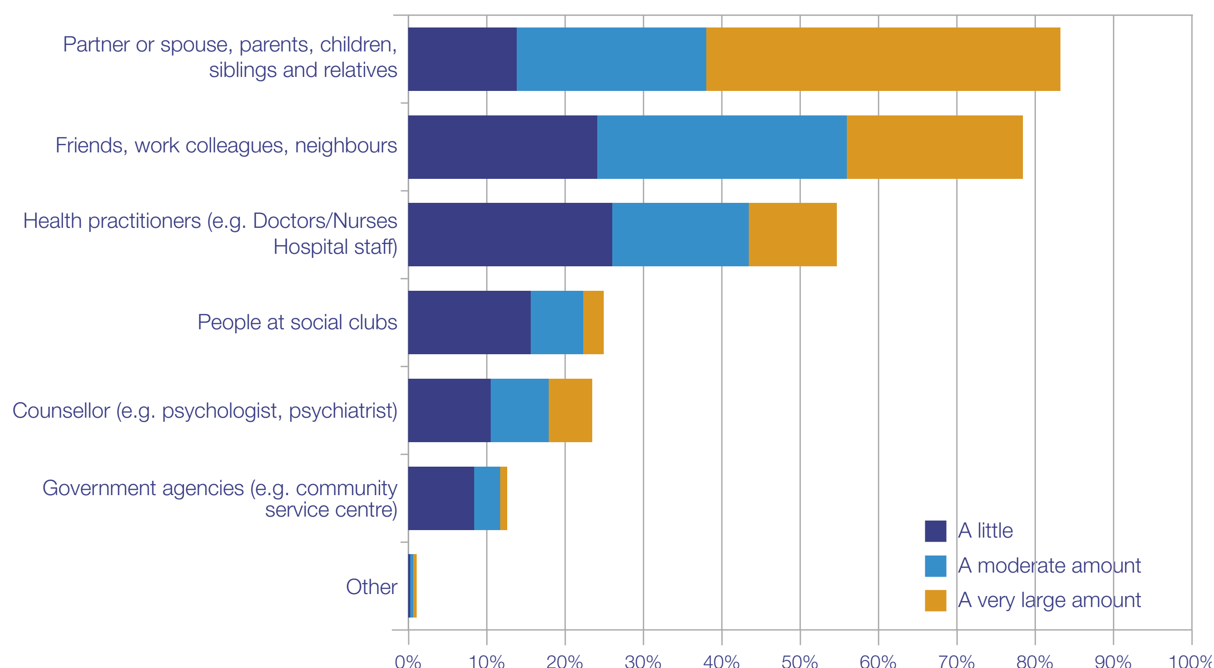
***significantly different from reference group (p<.01)*

****significantly different from reference group (p<.001)*

Sources of help and support received to help with coping

Over 80% of respondents who experienced one or more difficult life events received at least some help and support from someone close to them (i.e. partner, spouse, parents, children, siblings and relatives). The next group of people providing help and support in difficult times were friends, work colleagues or neighbours (78%). Health practitioners (55%) and people at social clubs (25%) were the third and fourth groups of people from which respondents received help (*Figure 5*).

Figure 5: *Proportion (%) of respondents receiving help and support from each of the different groups of people*



Note 1: Results are based on weighted percentage
Note 2: Total respondents are based only on those who had experienced at least one difficult life events
Note 3: The remaining proportion made up categories "None, can't say, or missing" so total should sum to 100

The proportion of females who received help and support from counsellors was significantly higher than males (26% and 20%, respectively). However, there were no significant differences between males and females for help and support received from other groups of people. People in the older age group (65 years and over) were significantly less likely to receive help and support from people close to them (such as their partner or children) compared with those in the 50–64 age group. People in the older age group were also less likely to seek help from their friends/work colleagues/neighbours and counsellors. However, they were more likely to receive help and support from people at social clubs (*Table 5*).

Not surprisingly, those who were married were significantly more likely to receive help and support from those close to them (such as their partner and children) compared with those who were not married. On the other hand, those who were not married were significantly more likely to receive help and support from counsellors and people at social clubs. Those who were employed would more likely seek help and support from those close to them compared with those people who were not employed. They were also more likely to seek help and support from their friends/colleagues/neighbours and counsellors. On the other hand, those not employed were more likely to seek help and support from people at social clubs and government agencies (*Table 5*).

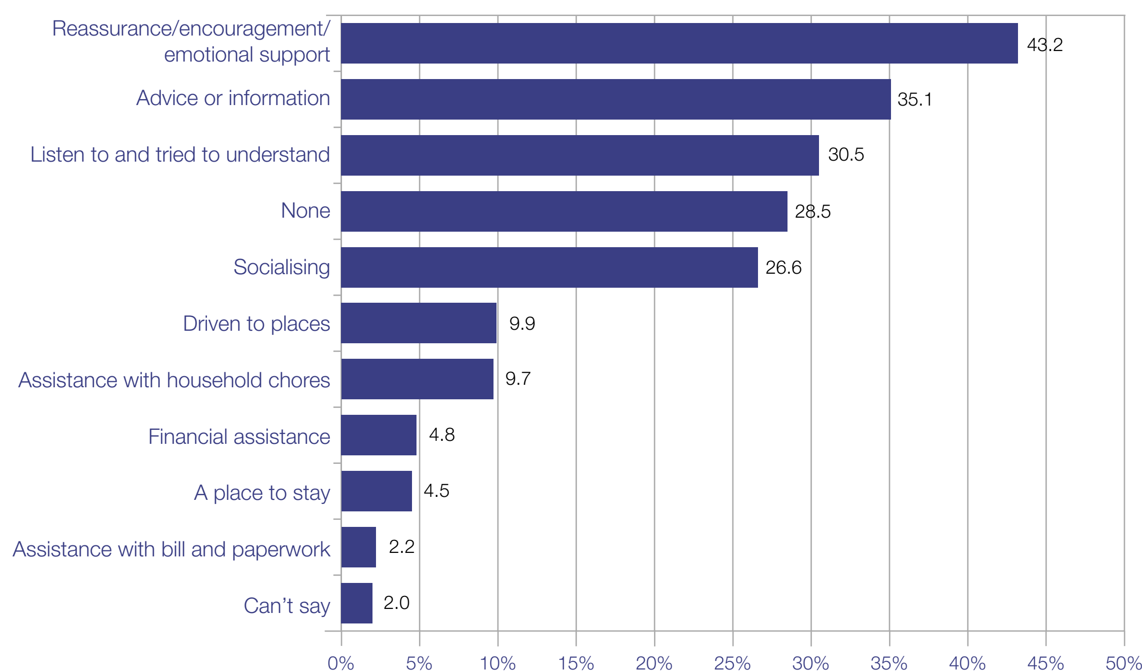
Table 5: *Proportion (%) of respondents receiving help and support from various sources by gender, age, marital status and employment status*

	Gender		Age		Marital status		Employment status	
Sources of help and support	Male	Female	50–64 years	65+ years	Not married	Married	Employed	Not employed
Partner/spouse, parents, children, siblings or relatives	84.3	82.1	87.1	78.3***	79.5	85.8***	87.0	80.6***
Friends, work colleagues, neighbours	76.4	80.2	81.0	75.3**	79.5	77.6	82.5	75.8**
Counsellor (e.g. psychologist, psychiatrist)	20.0	26.4**	27.3	18.5***	27.5	20.2***	26.1	21.5*
People at social clubs	24.0	25.7	21.9	28.5**	28.4	22.3**	20.5	27.7**
Health practitioners (e.g. doctors/nurses/hospital staff)	53.5	55.8	55.1	54.2	56.4	53.4	52.1	56.3
Government agencies (e.g. community-service centre)	12.4	12.7	11.5	13.9	14.2	11.4	10.4	14.0*

Note 1: Results are based on weighted percentage
Note 2: Total respondents are based only on those who had experienced at least one difficult life event
**significantly different from reference group (p<.05)*
***significantly different from reference group (p<.01)*
****significantly different from reference group (p<.001)*

The most frequently reported types of help and support were receiving reassurance/ encouragement/emotional support (43%), receiving advice or information (35%), being listened to or having someone try to understand (30%) or participating in social activities (27%) (*Figure 6*). About 29% of respondents said they did not receive any type of help or support (*Figure 6*).

Figure 6: *Proportion (%) of respondents receiving various types of help and support*

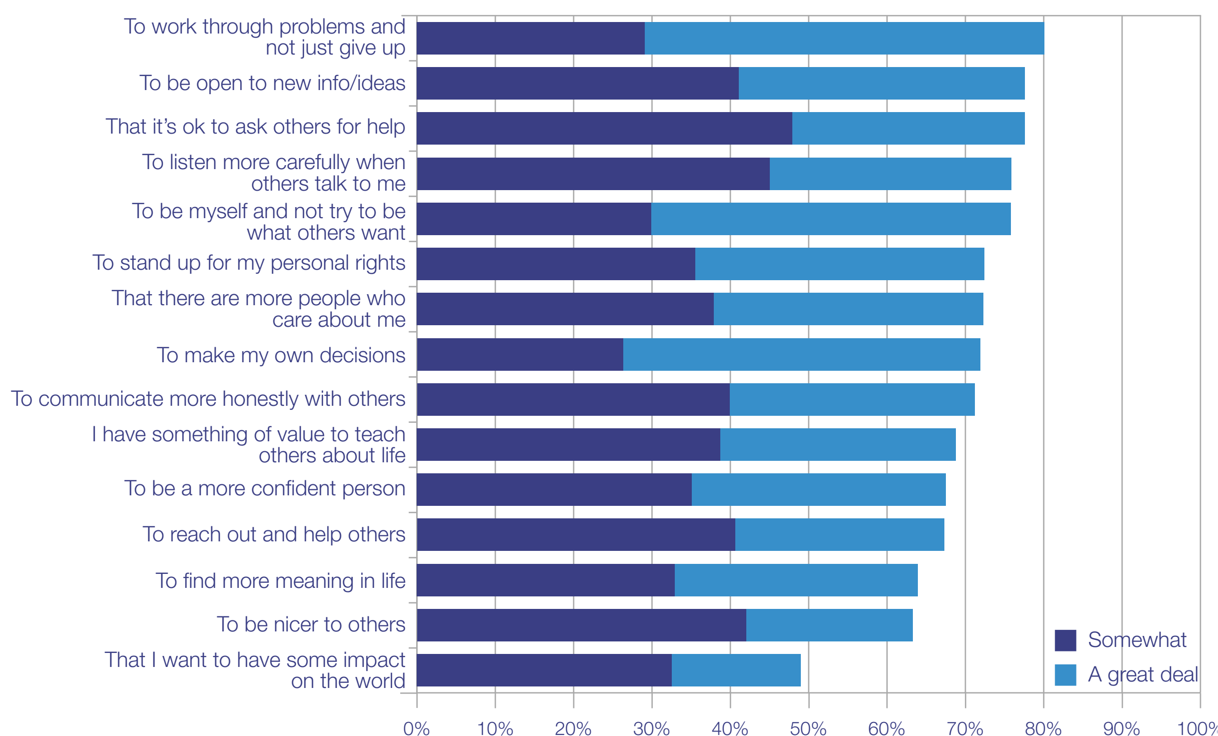


Note 1: Results are based on weighted percentage
Note 2: Total respondents are based only on those who had experienced at least one difficult life event
Note 3: Multiple responses are allowed so total does not add to 100

Stress-related growth: outcomes of events

The majority (at least 50%) of all those who experienced a difficult life event(s) had experienced at least one form of positive outcome(s) or stress-related growth (SRG), of which there are 15 descriptive items (*Figure 7*). For example, 80% of respondents who experienced one or more difficult events learned to work through problems and not just give up. Just less than 50% wanted to have some impact on the world.

Figure 7: *Proportion (%) of respondents who reported 'somewhat' or a 'great deal' for each of the 15 items indicating stress-related growth*



Note 1: Results are based on weighted percentage
Note 2: Total respondents are based only on those who had experienced at least one difficult life event
Note 3: The total percentage for each item should sum to 100. Thus, the remaining response categories included 'Not at all, can't say, and missing'

The mean for the total SRG score was 31.4 (*SD*=9.0). Independent sample t-tests revealed that the mean SRG score for females was significantly higher than males. Likewise, the mean SRG score for those who were not married was significantly higher compared with those who were married. However, there were no significant differences in the mean value of SRG between those aged 50–64 and aged 65 years and over, as well as for those who were employed versus those who were not employed (*Table 6*).

Table 6: *Mean stress-related growth scores for gender, age, marital status and employment status*

Gender		Age		Marital status		Employment status	
Males	Females	50–64 years	65+ years	Married	Not married	Employed	Not employed
29.6	32.8***	31.0	31.7	30.6	32.4***	31.5	31.4

Note 1: Results are based on weighted percentage
Note 2: Total respondents are based only on those who had experienced at least one difficult life event
**significantly different from reference group (p<.05)*
***significantly different from reference group (p<.01)*
****significantly different from reference group (p<.001)*

A significantly higher proportion of females than males reported 'somewhat' or a 'great deal' for most of 15 items measuring stress-related growth (*Table 7*). Some of the significant positive outcomes that were reported by women were *'to make my own decisions'*, *'to be a more confident person'*, *'that it's ok to ask others for help'* and *'to stand up for my personal rights'*. People 65 years and over were significantly less likely to have the following experiences: *'to be myself and not try to be what others want me to be'*, and *'to listen more carefully when others talk to me'*. For the other SRG items, there were no significant differences between those aged 50–64 and those aged 65 years and over (*Table 7*).

Those who were not married responded 'somewhat' or a 'great deal' significantly more often to the majority of the areas of SRG compared to those who were married. Some of the positive outcomes experienced by those who were not married included *'to make my own decisions'*, *'to be myself and not try to be what others want me to be'*, *'to be open to new information/ ideas'*, and *'to stand up for my personal rights'* (*Table 7*).

Those who did not complete Year 12 responded 'somewhat' or a 'great deal' significantly more often in three of the SRG items: *'to make my own decisions'*, *'to find more meaning in life'* and *'to stand up for my personal rights'*. Lastly, those who saw themselves as either religious or spiritual or both responded 'somewhat' or a 'great deal' significantly more often to all of the items of the SRG compared with those who were neither religious nor spiritual (*Table 7*).

Table 7: *Proportion (%) of respondents who reported 'somewhat' or 'a great deal' for each of the 15 items indicating stress-related growth, by gender, age, marital status, education, and perception of religiousness*

	Gender		Age		Marital status		Education		Self-perception	
Stress-related growth	Male	Female	50–64 years	65 years or older	Not married	Married	Completed Year 12	Did not complete Year 12	Either religious or spiritual or both	Neither religious nor spiritual
To be nicer to others	61.7	64.7	65.2	60.9	66.1	61.2*	64.0	62.9	67.8	57.4***
To make my own decisions	67.4	76.0***	73.2	70.3	77.9	67.5***	69.5	74.8*	74.3	68.9*
I have something of value to teach others about life	66.1	71.2*	70.4	66.8	71.1	67.1	69.0	69.0	74.8	58.4***
To be myself and not try to be what others want me to be	73.8	77.7	78.1	73.0*	80.1	72.7***	74.8	77.4	78.9	71.1**
To work through problems and not just give up	78.9	81.1	81.7	78.0	82.8	78.0*	79.6	81.0	82.7	76.1**
To find more meaning in life	58.2	69.2***	64.9	62.8	66.9	61.7*	61.5	66.8*	73.1	45.7***
To reach out and help others	63.3	70.8**	67.2	67.3	70.1	65.1*	67.0	67.9	74.1	56.3***
To be a more confident person	63.8	70.9**	69.1	65.5	72.4	63.8***	67.3	68.3	72.4	59.9***
To listen more carefully when others talk to me	72.6	78.8**	78.2	73.0*	79.3	73.3**	74.0	78.2	79.4	70.2***
To be open to new information/ideas	75.5	79.5	78.3	76.8	80.8	75.2**	75.9	79.7	80.7	72.3***
To communicate more honestly with others	68.9	73.2	73.2	68.7	74.9	68.4**	70.4	72.3	75.4	64.0***
That I want to have some impact on the world	43.8	53.9***	50.4	47.5	50.0	48.5	47.8	50.5	56.1	36.3***
That it's ok to ask others for help	74.2	79.0*	78.4	74.5	78.6	75.3	76.3	77.6	80.7	71.2***
To stand up for my personal rights	67.2	77.2***	73.8	70.8	77.0	69.1***	69.8	75.4*	74.9	68.1**
That there are more people who care about me	68.8	75.5**	73.5	70.8	74.7	70.5	70.7	74.4	76.4	67.2***

Note 1: Results are based on weighted percentage

Note 2: Total respondents are based only on those who had experienced at least one difficult life event

**significantly different from reference group (p<.05); **significantly different from reference group (p<.01); ***significantly different from reference group (p<.001)*

Factors associated with stress-related growth

A multiple linear regression analysis was performed to identify a set of significant predictors for SRG. The dependent variable was total SRG scores. The predictor variables included gender, age, marital status, total coping score, religious coping, number of different types of help and support received, education and the number of life events that were experienced.

The 'total coping score' was created by summing up all the individual scores from the 28 items of the Brief COPE measure.[37] A high score on this variable indicated high coping responses, while a low score indicated low coping responses. The mean for 'total coping score' was 47.3 (*SD*=22.5), with a minimum of 0 and a maximum of 93.[38]

Regression diagnostics were conducted and included checks of multicollinearity, normality, linearity, specification error and omitted variables biases. The results indicated that the model adequately satisfied all the basic regression assumptions.[39] The correlation matrix for the dependent variable and all the predictor variables is shown in Appendix D.

The regression model predicted 21% of the variance in total SRG scores[40], with 95% confidence interval [0.17, 0.25].[41] The model was suitable for predicting SRG ($p<.001$). The regression results are shown in Table 8.

Table 8: *Results of multiple linear regression analysis: Coefficients, standard errors, t-values, p-values and 95% C. I.*

	Coef.	SE	t-value	Sig.	95% C.I.
Constant	19.16	0.99	19.37	.000	(17.22, 21.10)
Gender (males versus females)	-1.57	0.45	-3.49	.000	(-2.46, -0.69)
Age group (65+ versus 50-64)	1.56	0.43	3.63	.000	(0.72, 2.41)
Marital status (married versus not married)	-0.35	0.46	-0.76	.445	(-1.25, 0.55)
Total coping score	0.16	0.02	10.12	.000	(0.13, 0.19)
Religious coping (yes versus no)	1.77	0.46	3.88	.000	(0.87, 2.66)
Number of different types of help and support received	0.62	0.11	5.33	.000	(0.39, 0.84)
Education (did not complete Year 12 versus completed Year 12)	1.42	0.42	3.41	.001	(0.60, 2.23)
Number of life events experienced	0.21	0.12	1.74	.082	(-0.03, 0.44)

Note: Coef.=regression coefficient; SE=standard error; Sig.=p-value; C.I.= confidence interval

[37] Bishop, A. J. Age and gender differences in adaptation and subjective well-being of older adults residing in monastic religious communities. *Pastoral Psychology*, 55, 131–143, 2006.

[38] A maximum score of 28 × 4 = 112 was expected, but there are some items with scores less than 4, hence the maximum is less than 112.

[39] The possible presence of heteroskedasticity (i.e. the variance of the residuals are not homoscedastic or constant) was adjusted by the use of the option 'robust' in the regress command. This will ensure correct estimates of the standard errors for the coefficients.

[40] This is classified as near to 'large' according to the criteria specified by Hopkins (2000). http://www.sportsci.org/resource/stats/index.html

[41] Based on the calculator from this website http://www.danielsoper.com/statcalc/calc28.aspx

The variable ‘total coping score’ was the strongest predictor of SRG, based on the assessment of the R-squared value. All predictors were found to be statistically significant ($p<.01$), with the exception of marital status and number of life events experienced. Specifically, after controlling for all the other variables, gender differences were statistically significant ($p<.001$), with males less likely to experience positive outcomes than females. Controlling for other variables in the model, age was also significant with a 1.56 unit increase in SRG scores for the 65+ age group compared with the younger age group (50–64). The use of coping strategies was also significant with a 0.16 unit increase in SRG scores for every unit increase in the use of coping responses. Likewise, making use of religious coping strategies predicted a 1.77 unit increase in SRG scores compared with those who did not use religious coping strategies, controlling for other variables in the model. The number of different types of help and support received predicted a 0.62 unit increase in SRG scores for every unit increase in the help and support received, controlling for other variables in the model. Education predicted 1.42 units higher in SRG scores for those who did not complete Year 12 compared with those who had completed Year 12, controlling for other variables in the model.

Conclusion

Mature age Australians most frequently experienced life events that were related to the death of a family member or close friend, a similar finding to previous studies.[42] The next most frequently reported difficult life events experienced by mature age people were retirement, changes in the health of a family member, personal injury or illnesses and changes in financial affairs status. Males and females reported significant differences in events, with females reporting a higher number of events relating to deaths, relationship issues, injury or illnesses and finances. Age-related differences were only found for events relating to work, retirement, and finances.

As expected, there were gender differences in the use of coping strategies, with females more likely to use adaptive coping strategies than males. This result was consistent with the study conducted with college students.[43] However, it contradicted some other studies where males were found to use more adaptive coping strategies than females.[44] In addition, other groups who were more likely to use adaptive coping strategies included those who had completed Year 12, those who were employed, those who described themselves as spiritual or religious or both and those who spent time on religious/spiritual practices.

The greater use of social support by females compared with males was evident in previous studies.[45] Hence, it is not surprising that in this study females were more likely than males to use counsellors such as psychologists and psychiatrists to help them deal with stressful life events. However, other sources of support such as a partner, friends or relatives were equally likely to be sought by both males and females.

When it came to the use of religious coping strategies, over half of those who experienced a difficult life event reported using at least one method of religious or spiritual ways of coping. Previous studies have highlighted that prayer and church/mosque/synagogues attendance were the common sources of emotional support for older adults.[46] This finding was supported in this study, where the use of prayer was the second most frequently reported coping strategy and church/mosque/synagogues attendance was the sixth most frequently reported. Specifically, for this study, those 65 years and over were more likely to attend church/mosque/synagogues than those who were 50–64 years. Older people regarded attending church/mosque/synagogues as beneficial because it provided a source of comfort and intimacy by having close contact with members of the religious community.[47] In addition, those who completed Year 12 were more likely to make use of some religious coping methods than those who had not completed Year 12.

[42] E.g. Couto, M. C. P., Koller, S. H., Novo, R. Stressful life events and psychological well-being in a Brazilian sample of older persons: The role of resilience, Ageing International, 36, 492–505, 2011.

[43] Wichianson, J. R., Bughi, S. A., Unger, J. B., Spruijt-Metz, D., Nguyen-Rodriguez, S. T. (2009). Perceived stress, coping and night-eating in college students. *Stress and Health*, 25, 235–240.

[44] E.g. Folkman, S., & Lazarus, R. S. An analysis of coping in a middle-aged community sample. *Journal of Health and Social Behaviour*, 21(3), 219–239, 1980.

[45] E.g. Ong et al. 2013, *op. cit*.

[46] E.g. Bishop, A. J. Age and gender differences in adaptation and subjective well-being of older adults residing in monastic religious communities. *Pastoral Psychology*, 55, 131–143, 2006.

[47] Prati, G., & Pietrantoni, L. Optimism, social support, and coping strategies as factors contributing to posttraumatic growth: A meta-analysis. *Journal of Loss and Trauma*, 14, 364–388, 2009.

Some studies have found the use of religious coping strategies a strong predictor of SRG.[48] This finding was supported by this study as the use of religious coping significantly contributed to the stress-related growth of mature age Australians. However, the use of other types of coping strategy was found to be the strongest predictor of growth. Overall, the model used to predict SRG was found to be significant, and six predictors within it were found to be significantly related to SRG. Consistent with previous studies[49], females reported higher levels of SRG compared with males. As females are known for being more expressive with their feelings than males[50], this finding was consistent with the finding in a longitudinal study where emotional expression was one of the best predictors of SRG.[51]

Despite this study being consistent with some previous studies, one of the potential limitations of this study was the time passed since respondents had experienced major difficult events. There may be bias in the recall of respondents of events that took place a long time ago and many studies have focused on more recent events rather than those that happened a long time ago. This study has assessed events that have been experienced by mature age Australians at any time because past research has suggested that the ability to recall salient life events (i.e. those most noticeable or important) was not a problem, even for older participants.[52]

Another issue raised elsewhere was related to the number of life events reported by older adults.[53] It is well known that older adults tend to face more health problems than younger adults[54] and they are also more likely to experience bereavement, but yet they tend to report fewer difficult life events. This study showed that participants experienced an average of four difficult events in their lives to date, which is lower than previous studies. For example, one study reported a mean of five events experienced over a 12-month period[55] and another study reported a mean of six events over a five-year period.[56] One possible hypotheses put forth was related to how the problems were perceived which can lead to them being classified as a difficult event or not.[57]

In summary, this study showed that mature age Australians employed a wide range of coping strategies to deal with their difficult life events. However, if they lacked the necessary strategies or resources to help them deal with such events it could have a direct impact on their quality of life. The result of this study has implications, especially for the health system as well as for the social inclusion policy of governments. Given the ageing population and the fact that older people are more likely to use health services, the demand for health-care services will likely increase.[58] Hence, having knowledge of the types of major difficult life events experienced by older people and the types of coping strategies used by them will help health-service agencies to better deal with this increasing demand.

[48] Ibid.
[49] E.g. Park et al. 1996, *op. cit*.; Bishop, 2006, *op. cit*.
[50] Park et al. 1996, *op. cit*.
[51] Prati & Pietrantoni, 2009, *op. cit*.
[52] Ong et al. 2013, *op. cit*.
[53] Aldwin 2007, *op. cit*.
[54] Australian Institute of Health and Welfare 2014, *op. cit*.
[55] Couto et al. 2011, *op. cit*.
[56] Ong et al. 2013, *op. cit*.
[57] Aldwin, 2007, *op. cit.*
[58] Australian Institute of Health and Welfare 2014, *op. cit*.

Appendices

Appendix A – Coping strategies

Table A-1: *Coping strategies (%)*

	The extent to which I've experienced this					
Since the difficult event(s) I've been…	Not at all	A little bit	Moderate	A lot	Can't say	Missing
turning to work or other activities to take my mind off things	19.9	17.6	21.4	20.1	9.1	11.9
concentrating my efforts on doing something about the situation I am in	12.6	16.2	21.5	29.3	8.2	12.1
saying to myself this isn't real	54.5	9.5	4.3	4.6	13.9	13.3
using alcohol/drugs to make myself feel better	59.7	11.3	3.7	2.5	9.9	12.9
getting emotional support from others	18.1	30.1	20.9	13.5	5.3	12.1
giving up trying to deal with it	59.3	9.1	4.1	2.7	10.7	14.0
taking action to make the situation better	9.0	14.8	24.8	32.3	7.2	11.9
refusing to believe that it has happened	65.4	6.6	2.8	1.7	10.3	13.2
saying things to let my unpleasant feelings escape	42.3	21.7	7.9	4.5	10.5	13.2
getting help/advice from other people	17.4	28.2	22.5	13.6	6.3	12.1
using alcohol/drugs to help me get through it	66.0	10.8	3.5	2.2	5.6	11.8
trying to see it in different light, to make it seem more positive	18.9	23.5	24.4	14.0	7.2	12.0
criticising myself	41.8	23.9	9.6	5.9	6.5	12.4
trying to come up with a strategy about what to do	15.2	17.1	26.5	22.5	6.6	12.1
getting comfort/understanding from someone	17.2	30.2	23.0	13.6	4.8	11.3
giving up the attempt to cope	68.5	6.8	3.3	0.9	7.5	12.9
looking for something good in what has been happening	16.1	24.9	23.7	17.4	6.2	11.6
making jokes about it	42.1	20.2	12.3	5.1	6.9	13.4
doing something to think about it less	23.2	23.7	23.4	12.5	5.5	11.5
accepting the reality that it has happened	4.3	9.9	25.5	46.6	3.5	10.2
expressing my negative feelings	27.7	30.3	16.4	6.7	6.5	12.4
trying to find comfort in my religion/beliefs	44.9	13.5	8.5	14.0	7.2	11.8
trying to get advice/help from others about what to do	26.3	28.9	19.4	8.5	5.0	11.8
learning to live with it	5.0	13.8	28.5	39.0	3.1	10.7
thinking hard about what steps to take	12.7	18.1	26.1	25.6	5.5	12.0
blaming myself for things that happened	50.4	18.9	7.1	5.1	6.4	12.1
praying or meditating	42.7	15.3	9.9	13.0	6.5	12.6
making fun of the situation	51.2	19.1	7.7	2.6	6.6	12.8

Note: Results are based on weighted percentage

Appendix B – Adaptive and maladaptive coping strategies

The 28 items of the Brief COPE instrument[59] were reduced to 14 subscales. These subscales included active coping, planning, positive reframing, acceptance, humour, religion, using emotional support, using instrumental support, self-distraction, denial, venting, substance use, behavioural disengagement and self-blame. Each of these 14 subscales is made up of two of the 28 items. An example for the active coping subscale is shown below.

Active coping:

- Concentrating my efforts on doing something about the situation I'm in
- Taking action to try to make the situation better.

The adaptive coping scale is made up of eight of the 14 subscales, namely: active coping, using emotional support, using instrumental support, positive reframing, planning, humour, acceptance and religion. Given that the maximum score for the individual subscales is eight, the maximum score for the adaptive coping scale is equal to $8 \times 8 = 64$.

Likewise, the maladaptive coping scale is made up of six of the 14 subscales, namely: self-distraction, denial, venting, substance use, behavioural disengagement, and self-blame. Given that the maximum score for the individual subscales is eight, the maximum score for the maladaptive coping scale is expected to equal to $8 \times 6 = 48$. However, the maximum is 40 because some subscales do not have a maximum score of eight.

[59] Carver, C. S. You want to measure coping but your protocol's too long: Consider the Brief COPE. *International Journal of Behavioural Medicine*, 4(1), 92–100, 1997.

Appendix C – Religious or spiritual coping strategies

Table C-1: *Religious or spiritual coping strategies*

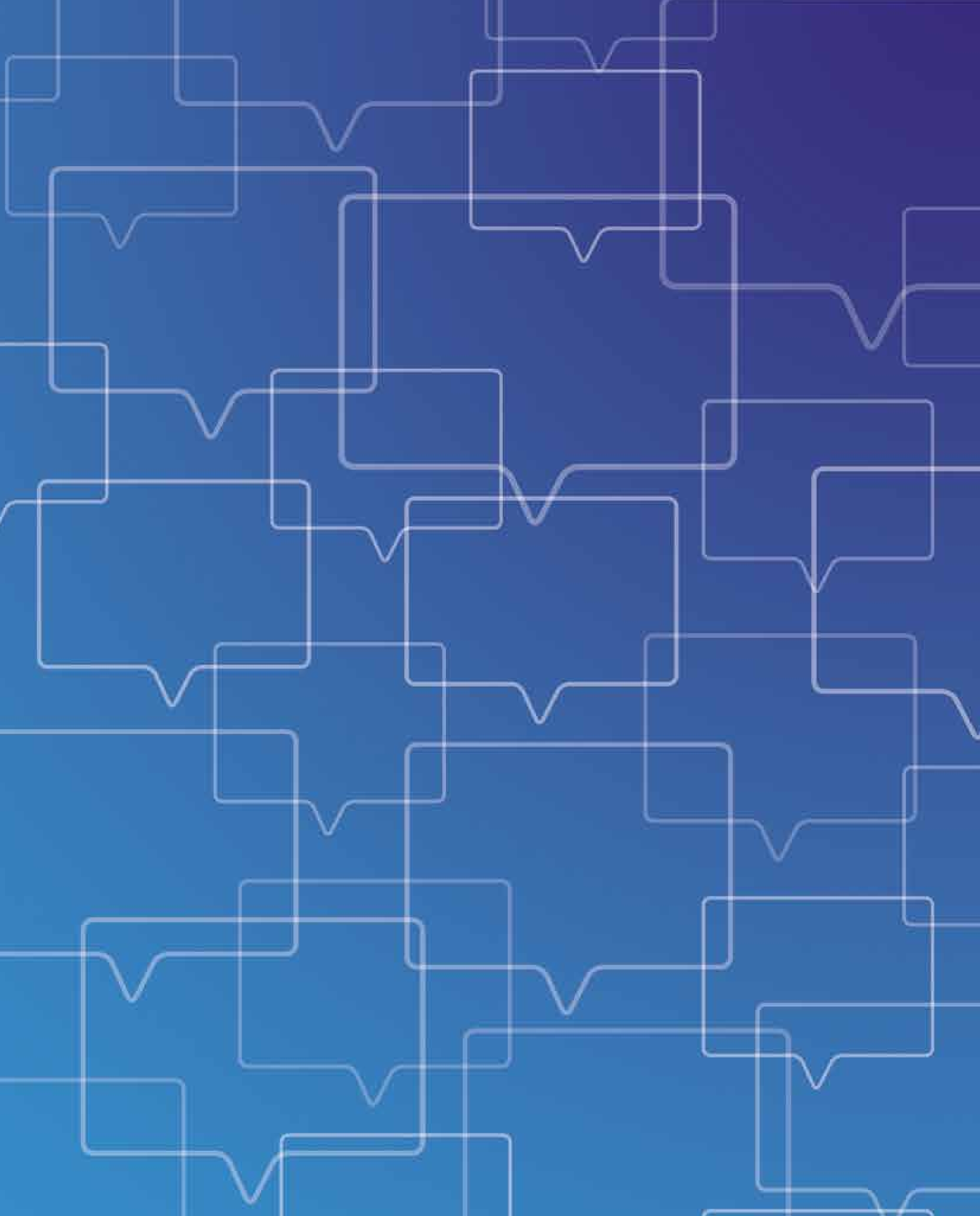
	Not at all or n/a	Somewhat	Quite a bit	A great deal	Can't say	Missing
Prayed	45.2	18.7	11.4	11.8	3.0	9.9
Thought about spiritual matters	41.3	22.9	11.2	10.9	3.2	10.4
Focused on religion	58.6	12.8	7.3	6.3	4.0	11.0
Been to church/mosque/ synagogues	60.4	8.1	6.7	11.4	3.0	10.5
Focused on God	51.6	15.2	8.1	11.1	3.2	10.8
Looked for spiritual support from a religious/spiritual leader	67.6	9.9	4.5	3.3	3.9	10.8
Asked others to pray for me	66.9	10.2	4.5	4.2	3.6	10.7
Looked for love and concern from the members of my religious institution	70.0	8.3	4.2	3.6	3.5	10.3
Sought support from members of my congregation	71.2	8.1	3.6	3.2	3.5	10.4
Asked religious leaders to remember me in their prayers	71.6	6.8	3.8	3.5	3.6	10.8
Tried to find a completely new way of life/transformation	73.2	6.1	2.7	2.9	4.5	10.6
Tried to provide spiritual support and comfort to others	57.6	15.7	7.4	5.5	3.3	10.6

Appendix D – Correlation matrix for the dependent variable and predictor variables

Table D-1: *Correlation matrix for the dependent variable and predictor variables*

	SRG scores	Sex	Age	Marital status	Total coping score	Religious coping	Number of help and support	Education	Number of life events
SRG scores	1.00								
Sex	-0.18	1.00							
Age	0.05	0.10	1.00						
Marital status	-0.11	0.29	-0.11	1.00					
Total coping score	0.39	-0.17	-0.12	-0.06	1.00				
Religious coping	0.23	-0.17	0.02	-0.08	0.28	1.00			
Number of help and support	0.27	-0.16	0.03	-0.14	0.36	0.21	1.00		
Education	0.05	-0.04	0.02	0.01	-0.04	-0.04	-0.10	1.00	
Number of life events	0.21	-0.07	0.07	-0.25	0.35	0.16	0.21	0.03	1.00

SRG= Stress-related growth
Age=Age group



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