

Evaluation of the effectiveness of a community-based crisis intervention program for people bereaved by suicide

Author

Visser, Victoria S, Comans, Tracy A, Scuffham, Paul A

Published

2014

Journal Title

Journal of Community Psychology

DOI

[10.1002/jcop.21586](https://doi.org/10.1002/jcop.21586)

Rights statement

© 2014 Wiley Periodicals, Inc.. This is the pre-peer reviewed version of the following article: Evaluation of the effectiveness of a community-based crisis intervention program for people bereaved by suicide, Journal of Community Psychology, Vol. 42(1), 2014, pp. 19-28, which has been published in final form at [dx.doi.org/10.1002/jcop.21586](https://doi.org/10.1002/jcop.21586).

Downloaded from

<http://hdl.handle.net/10072/65484>

Griffith Research Online

<https://research-repository.griffith.edu.au>

Abstract

Aim: This study aimed to evaluate the effectiveness of a suicide bereavement support service in reducing adverse health and social outcomes for people bereaved by suicide.

Methods: Retrospective cross-sectional design, comparing clients of the service with a control group of bereaved people who had not had contact with the program. Participants were assessed on quality of life, psychological distress, suicidality, health care usage and productivity.

Results: Clients have significantly lower levels of suicidality. There was a trend to higher quality of life and lower psychological distress. Clients had slightly higher productivity and lower health care service usage than the control group, although these differences were not statistically significant.

Conclusions: This paper demonstrates that an intervention program for people bereaved by suicide can be effective at reducing suicidality and may have a positive impact on other health and social outcomes.

Background

Approximately 2,000 deaths occur by suicide each year in Australia (Australian Bureau of Statistics, 2010). For every death through suicide, there may be at least six people who are significantly affected (Shneidman, 1973), although this number may in fact be much higher (Berman, 2011).

There are some distinct differences that may differentiate suicide bereavement from other forms of loss, which can complicate the grief process (Jordan & McMenemy, 2004). The duration of grief may be prolonged following suicide, with recovery typically taking between three and five years (Bonanno et al., 2002; Callahan, 2000; Davis, 2001; Feigelman, Jordan, & Gorman, 2008; Murphy, Johnson, Wu, Fan, & Lohan, 2003). A concerning feature of suicide bereavement is the potentially greater risk of suicide for the bereaved (Brent & Melhem, 2008; Krysinska, 2003; Mitchell, Kim, Prigerson, & Mortimer, 2005), possibly due to exposure to similar risk factors for suicide as the deceased person (e.g. mental illness vulnerability, family environment) (Jordan, 2001).

The main types of intervention for people bereaved by suicide include support groups, crisis intervention services and grief counselling. However, there is limited evidence demonstrating the effectiveness of these programs at improving health and social outcomes for clients or reducing the risk of further suicides (Andriessen, 2009; de Groot, Neeleman, van der Meer, & Burger, 2010; Jordan & McMenemy, 2004; Szumilas & Kutcher, 2011). The effectiveness of bereavement interventions has been found to be mediated by the time since the loss and the relationship to the deceased (Allumbaugh & Hoyt, 1999).

Intervention program

The StandBy Response Service is a suicide bereavement support service which, at the time of this evaluation, operated in nine locations across Australia. The service provides clients with face-to-face outreach and telephone support provided by a professional crisis response team. A site coordinator then develops a customised case management plan, referring clients to other existing community services matched to their needs. StandBy only responds to people who request the service. The service is available to clients at any time after the loss and clients are able to access the service as often as necessary.

Interventions provided by the StandBy Response Service are based on contemporary crisis intervention theory and strategies (James & Gilliland, 2005). However, the specific services provided to each client by the StandBy service and other local organisations can vary considerably, depending on their individual needs, as well as the availability of different services within the community.

The aim of this study was to evaluate the effectiveness and cost-effectiveness of the StandBy Response Service in reducing adverse health and social outcomes for people bereaved by suicide. This paper discusses the effectiveness outcomes.

Methods

Study design

A retrospective cross-sectional study comparing two groups of participants - previous clients of the StandBy Response Service (intervention group) and people bereaved by suicide who had not had contact with StandBy

(control group). The study was approved by the Griffith University Human Research Ethics Board Protocol Number: MED/01/11/HREC.

Study population

People who had experienced suicide bereavement and were over 18 years of age were invited to participate in a study of health and economic outcomes. Participants were recruited from current and previous StandBy clients between the period June 2009 and March 2011. A control group was drawn from people who responded to advertisements in national newspapers and social media sites. Participants completed an online questionnaire using Qualtrics™ survey software or a hard copy, if requested.

Cases (those who had received the postvention service) were matched with controls (those who had not received the service) using the time since bereavement and the relationship to the deceased to ensure comparability of groups (Allumbaugh & Hoyt, 1999; Feigelman, et al., 2008; Mitchell, Sakraida, Kim, Bullian, & Chiappetta, 2009). Given the much larger number of control group participants (n=670), the 90 intervention participants were matched with controls in a ratio of 4:1 to maximise the power of the study to detect differences between groups based on accepted methodology (Taylor, 1986).

Assessments

Demographics

Demographic measures included age, sex, marital status, education level, number of children, income, postcode, the relationship to the person who suicided and the time since bereavement.

Contact with the StandBy Response Service was measured by asking participants whether they had had contact with StandBy and, if so, the type of contact had (i.e. general information, telephone support, face-to-face support, etc.), the duration of contact and which service was contacted (i.e. site location).

Outcome measures

The evaluation questionnaire measured quality of life using two instruments. The EQ-5D™ is a standardised instrument for measuring generic health-related quality of life (EuroQol, 1990). The ICECAP index of

capability is a measure of general quality of life and covers five additional attributes not measured by the EQ-5D (Coast et al., 2008).

Psychological distress was measured using the Kessler Psychological Distress Scale version K6 (Kessler et al., 2010). Suicidality was measured using the Suicidal Behaviors Questionnaire-Revised (SBQ-R) (Osman et al., 2001).

Work performance was measured using the World Health Organization Health and Work Performance Questionnaire (HPQ) (Kessler et al., 2003). Health care usage was measured by asking participants to enter the number of times they had visited various medical and health practitioners over the past four weeks (not including contact with the StandBy Response Service).

Statistical analyses

Data are presented descriptively, with mean and standard deviation presented for continuous variables and number and percentage reported for categorical variables. Differences between groups were tested using an independent t-test for continuous variables. For categorical variables, the proportions in each group were compared using a two group proportion test (z statistic). All analyses were conducted in STATA/SE® version 11, StataCorp LP, College Station, Texas, USA.

Results

In total, 96 StandBy clients consented to participate in the evaluation. Based on the 415 clients contacted, a response rate of 23% was achieved. Ninety clients fully completed the study questionnaire and were included in the final cohort. In total, 905 people bereaved by suicide participated in the control group. Six hundred and seventy control group participants fully completed the questionnaire and after matching, a total of 360 control group participants were included in the analysis.

Demographics and contact with the StandBy Response Service

The demographic characteristics of the matched groups and details about contact with the StandBy Response Service by the intervention group are shown in Table 1.

<INSERT TABLE 1 HERE>

Effects of the StandBy Response Service program

Comparisons of the means for the health outcome variables (K6, SBQ-R, EQ-5D and ICECAP) between the intervention group and control group using an independent samples t-test showed that StandBy clients scored slightly, but consistently better than the control group on all four measures (see Table 2). However, only one difference reached statistical significance – level of suicidality ($p=0.006$).

Further analysis comparing the proportion of StandBy clients and control group participants at high risk for suicidality (SBQ-R score above 7) (48% and 64% respectively) showed that StandBy clients were significantly less likely to be at high risk ($p=0.005$). However, both groups showed high levels of suicidality (Osman, et al., 2001).

<INSERT TABLE TWO HERE>

Productivity results are given in Table 3. Rates of absenteeism, presenteeism and days off usual activities were all slightly higher (non-significant) for the control group than StandBy clients. However, participants of both groups had high rates of absenteeism, with an average number of days off work in the past month of 1.4 days for the StandBy client group and over 2 days for the control group. Those not employed may be even more impacted than those employed, with participants from both groups reporting they were unable to perform their usual activities for around six of the previous 28 days.

<INSERT TABLE THREE HERE>

Health care usage is reported in Table 4. Similar to the results for productivity, StandBy clients typically had fewer visits to health care professionals in the previous four weeks than the control group (non-significant). The exception to this was the number of visits to GPs, where both groups averaged approximately one GP visit in the past four weeks.

<INSERT TABLE FOUR HERE>

Discussion

The present study measured the effectiveness of a community-based crisis response service, the StandBy Response Service, in reducing adverse health and social outcomes for people bereaved by suicide. The results of this study suggest that the service significantly reduces clients' risk of high levels of suicidality. These findings support previous research findings that postvention support can be an effective method for preventing further suicidality (Andriessen, 2009; Jordan & McMenemy, 2004).

In addition, StandBy clients showed slightly better results, albeit non-significant, for quality of life and psychological health. Clients of the StandBy program also had somewhat, but not significantly, higher levels of productivity and lower use of health care services than people bereaved by suicide who had not received support from the program. Although the differences between groups were small and, for most measures, non significant, overall the majority of measures showed a positive trend for the StandBy group. These results suggest that the StandBy program may result in positive outcomes for people following suicide bereavement.

Despite generally positive results for StandBy clients in this evaluation, the results of this study show that this cohorts' health outcomes are considerably worse than normative data for the outcome measures from the general adult population (Coast, et al., 2008; Furukawa, et al., 2003; Kessler, et al., 2010; Osman, et al., 2001; Viney, et al., 2011). The findings also show this sample of people bereaved by suicide may have considerable reductions in productivity and high levels of health care usage compared to data from the general Australian population (Hilton, et al., 2008; Holden, et al., 2011). This suggests that bereavement through suicide may have substantial negative impact on those bereaved.

Limitations

The observational design of this study means that bias may be present and the direction of this bias is difficult to assess. An experimental study design using randomised control groups is difficult with this group, due to their elevated risk factors for adverse health outcomes and suicidality. We believe an observational design was appropriate in this group, as it demonstrates an expected positive benefit and is safe.

Respondents were self-selected and there may have been systematic differences between those who chose to be included and those who did not. This means that the results may not be transferable to all people bereaved

by suicide. The low response rate by StandBy clients (23%) may also have influenced the results. However, it is unknown if those clients who participated in the study were more or less likely to be experiencing negative health and social outcomes.

Despite matching the samples of the two groups on two variables (i.e. relationship to the deceased and time since bereavement), there were some significant demographic differences between the intervention and control groups and these differences may have influenced the results. However, based on the direction of these differences, it could be hypothesised that the control group would be expected to be faring better than the intervention group, which was not shown in the results.

Use of other types of bereavement support was not measured in this study. As such, it is possible that the control group had accessed support from other bereavement support services, which may have impacted on their health and social outcomes.

Finally, although the results of this study show a significant reduction in self-reported suicidal thoughts and behaviours by StandBy clients, it is extremely difficult to unequivocally prove that the intervention reduces actual suicide numbers or rates for people bereaved by suicide. The relatively low incidence of suicide as an event means that very large sample sizes are required to have sufficient statistical power to reveal a significant effect (Gunnell & Frankel, 1994; Mann et al., 2005). In addition, due to the observational study design, it is difficult to remove the potential effects of confounding variables.

Conclusions

This paper demonstrates that a community-based crisis intervention program for people bereaved by suicide can be effective at reducing suicidality. The program may also have some impact on quality of life, psychological distress, health care usage and work performance, although these results were not significant.

Acknowledgments

This project was funded by the Australian Government Department of Health and Ageing under the National Suicide Prevention Program. The views expressed in this paper are solely those of the authors and not of the funding body.

Figures

Table 1: Demographic characteristics of intervention and control groups

Variable	Intervention group - StandBy clients (n=90)		Matched control group (n=360)		Valid n - StandBy clients	Valid n - control group	P
Age (years) mean (SD), range	45.7 (15.8)	18-84	40.1 (13.4)	18-79	88	351	0.001
Gender (female) n, %	73	82%	311	88%	89	353	0.129
Education level n, %					88	352	0.101
Did not finish Junior	14	16%	27	8%			
Junior	16	18%	64	18%			
Senior	8	9%	37	11%			
Some tertiary or TAFE education	31	35%	133	38%			
Degree graduate	13	15%	55	16%			
Postgraduate degree	6	7%	36	10%			
Marital status n, %					88	353	0.633
Married or cohabitating	36	41%	143	41%			
Separated	6	7%	22	6%			
Divorced	11	13%	52	15%			
Widowed	16	18%	32	9%			
Never married	19	22%	104	29%			
Number of children mean (SD), range	2.9 (1.3)	1-5	2.6 (1.5)	1-5	88	353	0.056
Employment status n, %					90	355	0.459
Full-time employee	17	19%	80	23%			
Part-time employee	13	14%	45	13%			
Casual employee	8	9%	32	9%			
Unemployed	9	10%	35	10%			
Retired	16	18%	20	6%			
Homemaker	16	18%	48	14%			
Student	5	6%	57	16%			
Beneficiary (e.g. disability support)	6	7%	38	11%			
Household income level n, %					86	351	0.736
Under \$50,000	45	52%	164	47%			
\$50,000-\$100,000	21	24%	120	34%			
\$100,000-\$150,000	5	6%	19	5%			
Over \$150,000	15	17%	48	14%			
Location n, %					83	352	0.005
Metropolitan	47	57%	254	72%			
Regional	34	41%	95	27%			
Remote	2	2%	3	1%			
Relationship to person n, %					88	352	0.121
Partner/spouse	17	19%	56	16%			
Parent	13	15%	52	15%			
Sibling	8	9%	33	9%			
Child	21	24%	41	12%			
Other relative	4	5%	27	8%			
Close friend	9	10%	60	17%			

Colleague	1	1%	8	2%			
Other	15	17%	75	21%			
Time since bereavement n, %					87	352	0.000
0-6 months	32	37%	92	26%			
7-12 months	20	23%	40	11%			
13-18 months	10	11%	30	9%			
19-24 months	4	5%	24	7%			
over two years	21	24%	166	47%			
Type of contact with StandBy n, %					84		
General information	31	37%					
Telephone intervention	43	51%					
Outreach intervention	43	51%					
Referral to other services	35	42%					
Length of contact with StandBy n, %					82		
Less than 1 hour	20	25%					
Between 1 and 2 hours	24	30%					
Between 2 and 3 hours	10	12%					
Between 3 and 4 hours	13	16%					
Between 4 and 5 hours	3	4%					
More than 5 hours	11	14%					
StandBy site contacted n, %					82		
Sunshine/Cooloola Coast	19	25%					
Brisbane	18	24%					
Southern Tasmania	18	24%					
North/NW Tasmania	14	18%					
A.C.T.	4	5%					
Far North Queensland	3	4%					
Pilbara region	3	4%					
East Kimberley	0	0%					
West Kimberley	0	0%					

Table 2: Overall differences between intervention group and control group for psychological distress (K6) and suicidality (SBQ-R) and quality of life (EQ-5D and ICECAP)

Outcome variable	StandBy Clients			Control Group			Mean Difference	P
	n	mean	SD	n	mean	SD		
K6	86	8.99	6.62	348	9.78	6.37	-0.79	0.308
SBQ-R	90	7.52	4.49	353	8.88	4.11	-1.36	0.006
EQ-5D	87	0.711	0.24	354	0.69	0.24	0.021	0.483
ICECAP	90	0.763	0.17	360	0.737	0.2	0.026	0.241

Table 3: Productivity results

	StandBy Clients	Control Group	Mean difference	P
Employed n (%)	38 (42)	157 (44)		
Missed work day (SD)	1.4 (3.7)	2.25 (5.4)	-0.85	0.38
Missed part work day (SD)	0.36 (0.6)	0.71 (2.1)	-0.35	0.35
Self rated productivity (0-10) scale (SD)	7.53 (1.8)	7.31 (2.1)	0.22	0.57
Missed days off usual activities (SD)	5.65 (7.6)	6.27 (7.9)	-0.62	0.64

Table 4: Health care usage results

Health care usage (number of visits)	StandBy Clients	Control Group	Mean difference	P
Consulted general practitioner (SD)	0.97 (1.7)	0.96 (1.9)	0.01	0.86
Consulted specialist (SD)	0.25 (0.7)	0.39 (1.6)	-0.14	0.59
Emergency care (SD)	0.21 (0.5)	0.27 (0.6)	-0.06	0.31
Consulted mental health care specialist (SD)	0.81 (1.3)	0.92 (2.2)	-0.11	0.90
Consulted other health care professional (SD)	0.27 (0.7)	0.24 (0.4)	0.03	0.64

References

- Allumbaugh, D. L., & Hoyt, W. T. (1999). Effectiveness of grief therapy: A meta-analysis. *Journal of Counseling Psychology, 46*(3), 370-380.
- Andriessen, K. (2009). Can postvention be prevention? *Crisis, 30*(1), 43-47. doi: 10.1027/0227-5910.30.1.43
- Australian Bureau of Statistics. (2010). *Causes of Death 2008*. Canberra.
- Berman, A. L. (2011). Estimating the population of survivors of suicide: seeking an evidence base. *Suicide Life Threat Behav, 41*(1), 110-116. doi: 10.1111/j.1943-278X.2010.00009.x
- Bonanno, G. A. (2004). Loss, trauma, and human resilience: have we underestimated the human capacity to thrive after extremely aversive events? *Am Psychol, 59*(1), 20-28.
- Bonanno, G. A., Westphal, M., & Mancini, A. D. (2011). Resilience to loss and potential trauma. *Annu Rev Clin Psychol, 7*, 511-535. doi: 10.1146/annurev-clinpsy-032210-104526
- Bonanno, G. A., Wortman, C. B., Lehman, D. R., Tweed, R. G., Haring, M., Sonnega, J., . . . Nesse, R. M. (2002). Resilience to loss and chronic grief: a prospective study from preloss to 18-months postloss. *J Pers Soc Psychol, 83*(5), 1150-1164.
- Brent, D. A., & Melhem, N. (2008). Familial transmission of suicidal behavior. *Psychiatr Clin North Am, 31*(2), 157-177.
- Callahan, J. (2000). Predictors and correlates of bereavement in suicide support group participants. *Suicide Life Threat Behav, 30*(2), 104-124.
- Coast, J., Flynn, T. N., Natarajan, L., Sproston, K., Lewis, J., Louviere, J. J., & Peters, T. J. (2008). Valuing the ICECAP capability index for older people. *Soc Sci Med, 67*(5), 874-882.
- Davis, G. F. (2001). Loss and the duration of grief. *JAMA, 285*(9), 1152-1153.
- de Groot, M., Neeleman, J., van der Meer, K., & Burger, H. (2010). The effectiveness of family-based cognitive-behavior grief therapy to prevent complicated grief in relatives of suicide victims: the mediating role of suicide ideation. *Suicide Life Threat Behav, 40*(5), 425-437. doi: 10.1521/suli.2010.40.5.425
- DPIE, & DSHS. (1994). *Rural, Remote and Metropolitan Areas classification*. Canberra: Australian Government Publishing Service.
- EuroQol, G. (1990). EuroQol--a new facility for the measurement of health-related quality of life. The EuroQol Group. *Health Policy, 16*(3), 199-208.
- Feigelman, W., Jordan, J. R., & Gorman, B. S. (2008). How they died, time since loss, and bereavement outcomes. *Omega (Westport), 58*(4), 251-273.
- Furukawa, T. A., Kessler, R. C., Slade, T., & Andrews, G. (2003). The performance of the K6 and K10 screening scales for psychological distress in the Australian National Survey of Mental Health and Well-Being. *Psychol Med, 33*(2), 357-362.
- Gunnell, D., & Frankel, S. (1994). Prevention of suicide: aspirations and evidence. *Bmj, 308*(6938), 1227-1233.
- Harvard School of Medicine. (2005). National Comorbidity Survey, from <http://www.hcp.med.harvard.edu/ncs/index.php>
- Hilton, M. F., Scuffham, P. A., Sheridan, J., Cleary, C. M., & Whiteford, H. A. (2008). Mental ill-health and the differential effect of employee type on absenteeism and presenteeism. *J Occup Environ Med, 50*(11), 1228-1243. doi: 10.1097/JOM.0b013e3181818c30a8
- Holden, L., Scuffham, P. A., Hilton, M. F., Ware, R. S., Vecchio, N., & Whiteford, H. A. (2011). Which health conditions impact on productivity in working Australians? *J Occup Environ Med, 53*(3), 253-257. doi: 10.1097/JOM.0b013e31820d1007
- James, R. K., & Gilliland, B. E. (2005). *Crisis intervention strategies*. Belmont, CA: Thomson.
- Jordan, J. R. (2001). Is suicide bereavement different? A reassessment of the literature. *Suicide Life Threat Behav, 31*(1), 91-102.
- Jordan, J. R., & McMenemy, J. (2004). Interventions for suicide survivors: a review of the literature. *Suicide Life Threat Behav, 34*(4), 337-349.
- Kessler, R. C., Andrews, G., Colpe, L. J., Hiripi, E., Mroczek, D. K., Normand, S. L., . . . Zaslavsky, A. M. (2002). Short screening scales to monitor population prevalences and trends in non-specific psychological distress. *Psychol Med, 32*(6), 959-976.

- Kessler, R. C., Barber, C., Beck, A., Berglund, P., Cleary, P. D., McKeenas, D., . . . Wang, P. (2003). The World Health Organization Health and Work Performance Questionnaire (HPQ). *J Occup Environ Med*, 45(2), 156-174.
- Kessler, R. C., Green, J. G., Gruber, M. J., Sampson, N. A., Bromet, E., Cuitan, M., . . . Zaslavsky, A. M. (2010). Screening for serious mental illness in the general population with the K6 screening scale: results from the WHO World Mental Health (WMH) survey initiative. *Int J Methods Psychiatr Res*, 19 Suppl 1, 4-22. doi: 10.1002/mpr.310
- Krysinska, K. E. (2003). Loss by suicide. A risk factor for suicidal behavior. *J Psychosoc Nurs Ment Health Serv*, 41(7), 34-41.
- Mann, J. J., Apter, A., Bertolote, J., Beautrais, A., Currier, D., Haas, A., . . . Hendin, H. (2005). Suicide prevention strategies: a systematic review. *JAMA*, 294(16), 2064-2074. doi: 10.1001/jama.294.16.2064
- Mitchell, A. M., Kim, Y., Prigerson, H. G., & Mortimer, M. K. (2005). Complicated grief and suicidal ideation in adult survivors of suicide. *Suicide Life Threat Behav*, 35(5), 498-506. doi: 10.1521/suli.2005.35.5.498
- Mitchell, A. M., Sakranda, T. J., Kim, Y., Bullian, L., & Chiappetta, L. (2009). Depression, anxiety and quality of life in suicide survivors: a comparison of close and distant relationships. *Arch Psychiatr Nurs*, 23(1), 2-10. doi: 10.1016/j.apnu.2008.02.007
- Murphy, S. A., Johnson, L. C., Wu, L., Fan, J. J., & Lohan, J. (2003). Bereaved parents' outcomes 4 to 60 months after their children's deaths by accident, suicide, or homicide: a comparative study demonstrating differences. *Death Stud*, 27(1), 39-61. doi: 10.1080/07481180302871
- Osman, A., Bagge, C. L., Gutierrez, P. M., Konick, L. C., Kopper, B. A., & Barrios, F. X. (2001). The Suicidal Behaviors Questionnaire-Revised (SBQ-R): validation with clinical and nonclinical samples. *Assessment*, 8(4), 443-454.
- Rabin, R., Oemar, M., & Oppe, M. (2011). EQ-5D-3L User Guide. Basic information on how to use the EQ-5D-3L instrument (Version 4.0 ed.): EuroQol Group Executive Office on behalf of the EuroQol Group.
- Shneidman, E. S. (1973). *On the nature of suicide*. San Francisco: Jossey-Bass.
- Sveen, C. A., & Walby, F. A. (2008). Suicide survivors' mental health and grief reactions: a systematic review of controlled studies. *Suicide Life Threat Behav*, 38(1), 13-29. doi: 10.1521/suli.2008.38.1.13
- Szumilas, M., & Kutcher, S. (2011). Post-suicide intervention programs: a systematic review. *Can J Public Health*, 102(1), 18-29.
- Tarride, J. E., Burke, N., Bischof, M., Hopkins, R. B., Goeree, L., Campbell, K., . . . Goeree, R. (2010). A review of health utilities across conditions common in paediatric and adult populations. *Health Qual Life Outcomes*, 8, 12. doi: 10.1186/1477-7525-8-12
- Tatz, C. (2005). *Aboriginal Suicide is Different: A Portrait of Life and Self Destruction*: Aboriginal Studies Press.
- Taylor, J. M. (1986). Choosing the number of controls in a matched case-control study, some sample size, power and efficiency considerations. *Stat Med*, 5(1), 29-36.
- Viney, R., Norman, R., King, M. T., Cronin, P., Street, D. J., Knox, S., & Ratcliffe, J. (2011). Time trade-off derived EQ-5D weights for Australia. *Value in Health*. Retrieved from Value in Health website: [www.valueinhealthjournal.com/article/S1098-3015\(11\)01492-6/abstract](http://www.valueinhealthjournal.com/article/S1098-3015(11)01492-6/abstract)