
**Australian Mental Health Outcomes and Classification Network**

**'Sharing Information to Improve Outcomes'**

**An Australian Government funded initiative**

# FINAL REPORT

## Development of the

## Living in the Community - Summary (LCQ-S)

October 2019

This report has been prepared by the Australia Mental Health Outcomes and Classification Network for the Mental Health Information Strategy Standing Committee. Funding for this project was provided by the Australian Government Department of Health.

# ACKNOWLEDGEMENTS

The Australia Mental Health Outcomes and Classification Network acknowledges the important role of consumers and carers in the development and review of the items in Living in the Community Questionnaire and the Living in the Community Questionnaire – Summary. We also acknowledge the time contributed by mental health professionals, advocacy organisations, mental health services and jurisdictions.

We would also like to thank the National Mental Health Information Development Expert Advisory Panel for reviewing the questionnaire over several iterations, as well as recognising the expert guidance and review of the Mental Health Information Strategy Standing Committee to this project.

# ACRONYMS AND ABBREVIATIONS USED IN THIS REPORT

| | |
|---|---|
| ABS | Australian Bureau of Statistics |
| AMHOCN | Australia Mental Health Outcome and Classification Network |
| Fifth Plan | Fifth National Mental Health and Suicide Prevention Plan |
| Fourth Plan | Fourth National Mental Health Plan |
| K-10 | Kessler-10 |
| KMO | Kaiser-Meyer-Olkin |
| LCQ-S | Development of the Living in the Community - Summary |
| MHISSC | Mental Health Information and Strategy Standing Committee |
| n | Sample size |
| NHS | National Health Survey |
| NMHIDEAP | National Mental Health Information Development Advisory Panel |
| PCA | Principal Component Analysis |
| PI | Performance Indicator |
| $r_s$ | Spearman's rho correlation |

# CONTENTS

# EXECUTIVE SUMMARY

The Australian Mental Health Outcomes and Classification Network (AMHOCN) was tasked by the Mental Health Information Strategy Standing Committee (MHISSC) with the creation of a summary form of the Living in the Community Questionnaire (LCQ). This new questionnaire (LCQ-S) needed to be suitable for use in clinical practice and, as a by-product, report indicators under the Fifth National Mental Health and Suicide Prevention Plan (Fifth Plan), in particular, Performance Indicators (PI) 8 (*Connectedness and meaning in life*) and 9 (P*roportion of mental health consumers in suitable housing)* [1].

## About the LCQ-S

The original LCQ consisted of 33 items measured on several different rating and response scales. To provide a simple summary form, both the items and response options were revised to reduce the cognitive burden of the scale. The LCQ-S includes 15 items measured on two response scales. These 15 items were developed from the original qualitative research conducted during the development of the LCQ and reviewed by both the MHISSC and the National Mental Health Information Development Expert Advisory Panel (NMHIDEAP). The LCQ-S was further revised through two rounds of testing with an online panel to provide the final questionnaire. The online tests were structured to ensure sufficient numbers of respondents with high levels of psychological distress were included in the sample, so that the performance of the items could be understood in a distressed population.

## Method

The online panel consisted of three studies. Study One consisted of an online panel that was used to recruit 2,014 general population members. These respondents completed the LCQ-S and the K-10. K-10 scores were used to identify the respondent's level of psychological distress. Those respondents with high levels of psychological distress could therefore be used as proxies for the target population i.e., consumers of specialist mental health services. At the completion of Study One, respondents were then invited participate in either Studies Two or Three. Those that agreed to participate were then assigned to either a test retest reliability study (Study Two) or a content validity study (Study Three) of the LCQ-S. Quotas were applied between Study One and Studies Two and Three so that there were sufficient respondents for each study who also had high K-10 scores.

## Findings

Underpinning the development of the LCQ-S was a model of social inclusion that viewed such things as social participation, education and employment as predictive of a sense of social inclusion. A linear regression identified that the theoretical model underpinning the LCQ-S was able to predict *sense of being part of a group or community* with reasonable accuracy. Furthermore, a Principle Component Analysis (PCA) identified that the data contained local segments that added to the analysis of the data and could be used for reporting purposes. The LCQ-S was shorter than the LCQ, taking less than three minutes to complete on average.

The test retest reliability study (Study Two) found a good level of correlation between the test and retest questionnaires (Spearman's rho ($r_s$) was 0.677). The internal consistency of the questionnaire

was found to be better for the questions measured on the Likert-style scale (Cronbach's Alpha of 0.884) compared to the categorical questions measured on the binary scale (Cronbach's Alpha of 0.519). This is not surprising given the greater flexibility of the Likert scale.

The content validity study (Study Three) found that the LCQ-S was considered by respondents to be easy to complete and included topics important to social inclusion.

These results prompted small changes to the activity and accommodation items, reflecting the findings of both rounds of quantitative testing. The final version of the LCQ-S was endorsed by MHISSC on 28 June 2019.

# Conclusion

The LCQ-S is a short measure of social inclusion that is easy to complete and provides information on important aspects of social inclusion. It could be used to populate indicators under the Fifth National Mental Health and Suicide Prevention Plan (including *Connectedness and meaning in life*, *Rate of social/community/ family participation amongst people with mental illness, Proportion of mental health consumers in suitable housing*).

# 1. BACKGROUND

The Fourth National Mental Health Plan (the Fourth Plan)[2] set an agenda for collaborative government action in mental health across a framework of five key priority areas, the first of which was 'social inclusion and recovery'.

The original LCQ was developed by the AMHOCN under the auspices of the MHISSC to support reporting of a set of Fourth Plan indicators aimed to specifically monitor social inclusion of consumers [3].

The Fifth National Mental Health and Suicide Prevention Plan (Fifth Plan) [1] was endorsed by the Council of Australian Government's Health Council on 4 August 2017. Like its forerunner, the Fifth Plan has also identified improving social inclusion for mental health consumers as a key priority. The Fifth Plan includes specific performance indicators on employment, housing, connectedness, meaning in life and social and community participation. Measures are available for these topics from national population surveys. However, there is no current source of this data for consumers of specialist mental health services, who may experience the greatest barriers to social inclusion.

The LCQ has been identified as a measure that may be suitable for the reporting of Fifth Plan indicators [1]. The full LCQ includes 33 questions with scales to measure both subjective and objective social inclusion[3]. This approach, while thorough, increased the length and cognitive burden of the measure.

AMHOCN was tasked by the MHISSC with the creation of a summary form of the LCQ (the LCQ-S) suitable for reporting indicators within the Fifth Plan, in particular:

PI 8. Connectedness and meaning in life; and
PI 9. Rate of social/community/ family participation amongst people with mental illness
PI 12. Proportion of mental health consumers in suitable housing

The LCQ-S was developed based on a review of the work undertaken to develop the LCQ followed by a review of the measure itself. This review identified 15 items (plus six demographic items that could be used for testing purposes). To provide a simple summary form, the response scales from the LCQ were revised so that both subjective and objective experience of social inclusion could be captured. The LCQ asked for estimations of the amount of time spent on social activities, education or work. In creating the LCQ-S, these questions were modified so that the consumer is simply asked if they have been involved in any of these activities, creating a simple Yes/No format (See Table 1).

Some items of the original LCQ that aimed to understand the degree to which the consumer can influence decisions that affect them, were slightly modified for the LCQ-S but retained the original performance scale (poor, fair, good, very good, excellent) rating. Additional items were included that look at the consumer's sense of being part of a group, hopefulness for the future and overall wellbeing. Unlike the LCQ, the summary version has one consistent rating period of four weeks.

**Table 1: Revisions to questions (Yes/No scale)**

| Original LCQ Questions | Revised LCQ-S Questions |
|---|---|
| In the last four weeks did you… | In the last four weeks… |
| 1. Do any activities with family or friends? | 1. Did you do any social activities with family or friends? |
| 2. Do any activities with community or social groups? | 2. Did you do any social activities with community groups or clubs? |
| 3. Participate in any paid employment (including if you were on leave)? | 3. No change |
| 4. Participate in any organised volunteer work? | 4. No change |
| 5. Participate in any organised education or training? | 5. Were you enrolled in a training or education course? |
| 6. Provide unpaid care (such as personal care, support or assistance) to a family member or friend? This includes work for which you may have received a Carer Allowance or Carer payment)? | 6. Did you provide care (such as personal care, support or assistance) to a family member or friend? |
| 7. Have suitable housing (thinking about cost, location, security and space)? | 7a. Did you have suitable housing?[1]<br>**OR**<br>7b. Did you have adequate accommodation? |
| 8. Have enough social contact with other people? | 8. Did you feel lonely? |
| 9. Have enough money to pay your bills? | 9. No change |

The LCQ-S is 15 items long (Appendix A). Questions 1 to 6 gather information on the objective experience of social inclusion, Questions 7 to 15 gather information on the subjective experience of social inclusion. This distinction between subjective and objective experience of social inclusion is not a clear cut distinction and interpretation can be subject to contextual issues. The LCQ-S uses a Yes/No format for Questions 1 to 9, gathering information on social participation, education and employment. Questions 10 to 15 use a Likert response scale (poor to excellent), gathering information on the consumer's physical health and ability to influence decisions on matters that are important to them; their sense of being part of a group, hopefulness for the future and overall wellbeing.

Following the successful testing of the LCQ with an online panel [3], a similar method was used to test the LCQ-S. An initial round of testing (Round One) was undertaken in February 2019. Round One[2] identified items that required additional modification in order to improve clarity and reliability of the measure. While some aspects of the measure performed well. There were several items that proved to have lower test retest reliability than others. These items included:

- Do any activities with family or friends
- Participate in any organised education or training
- Have suitable housing (thinking about cost, location, security and space)
- Have enough social contact with other people

[1] Two questions were created for this study testing purposes.
[2] Development of the LCQ-S initial psychometric analysis. AMHOCN unpublished report.

Subsequently, Round Two of testing, using the online methodology, was undertaken in May 2019 and the results of Round Two are reported in this paper.

# 2. AIM AND OBJECTIVES

The aim of the work undertaken in Round Two was to provide an analysis of the psychometric properties of the LCQ-S to inform any further changes to the questionnaire prior to its release for use with mental health consumers.

The objectives of Round Two were to:

- test the general psychometric properties of the LCQ-S;
- test the reliability of the LCQ-S and determine the impact, if any, of psychological distress (as measured by the K-10) on reliability;
- identify the impact of changes to the questions on reliability; and
- test the validity of the LCQ-S and determine the impact, if any, of psychological distress (as measured by the K-10) on validity

# 3. METHOD

Ethics approval for these studies was provided by the University of Wollongong Human Research Ethics Committee (approval number 2018/564).

An online panel was sourced using a market research firm. These online panels allow the recruitment of a large number of individuals who volunteer to provide information and are rewarded through an incentive program (entry into a sweepstakes draw) to participate. Using this method, over 2000 individuals were recruited during Round Two and variously participated in three studies. All respondents had to participate in Study One to be eligible for either Study Two or Study Three. Respondents were not permitted to participate in both Study Two and Three (so the maximum number of questionnaires a participant could complete was two).

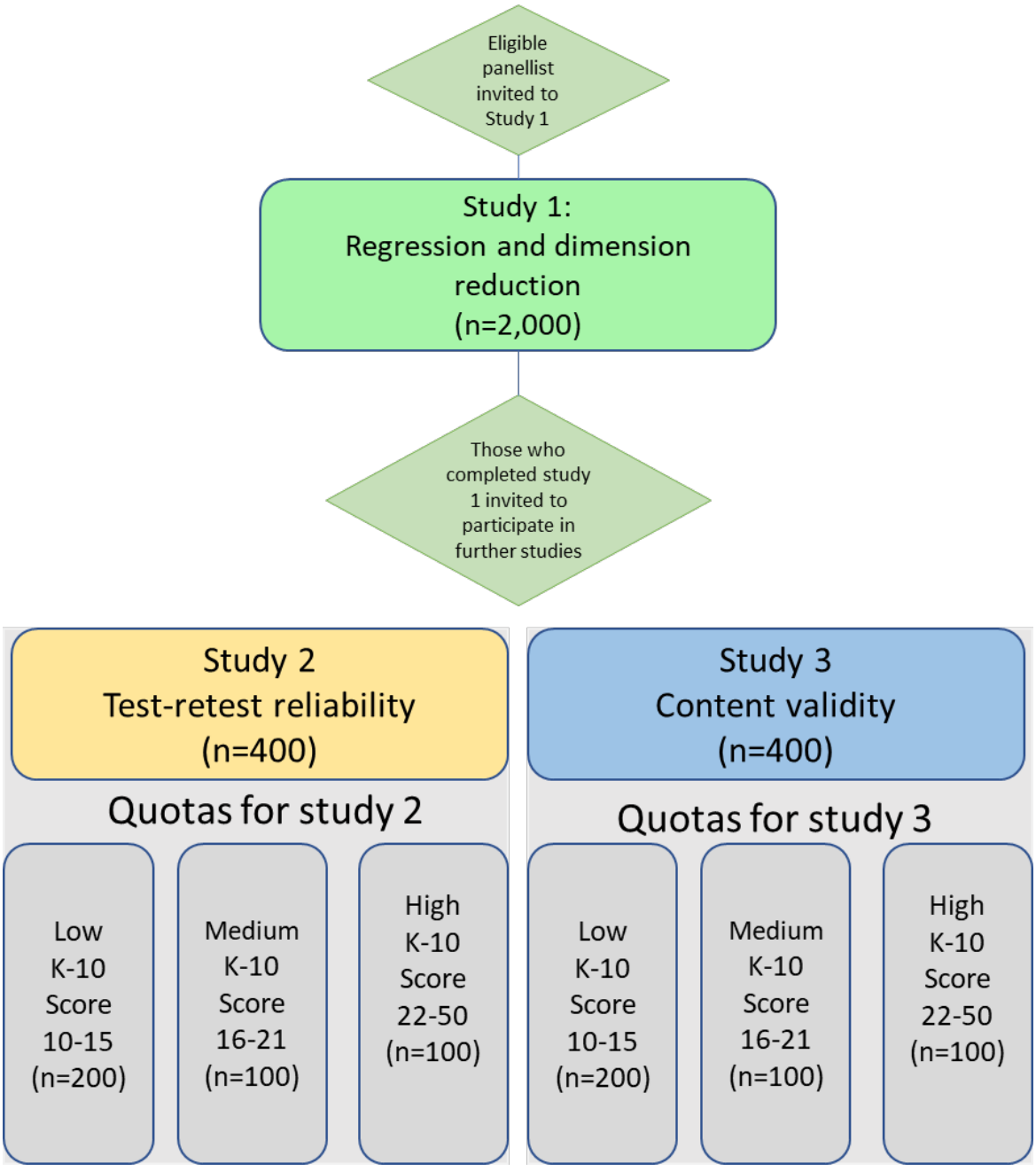
**Psychological distress, regression and dimension reduction: Study 1 –** The psychological distress, regression and dimension reduction study included: the LCQ-S (Appendix A), the K-10 and an additional question related to seeing a health professional for concerns about mental health in the last 12 months. This study also included an opt-in consent process for participation in Studies Two and Three.

**Test retest reliability: Study 2 -** A test retest reliability study was undertaken, where a sample of respondents completed the LCQ-S a second time approximately two days after the first administration (with an additional question to identify any changes in circumstances or experience that might have affected responses to the questionnaire). A test retest reliability study can be affected by the amount of time between the first and second completions of the questionnaire. The quota for the test retest reliability study was filled before participants were accepted into the validity study. (Study Three).

**Content validity: Study 3 -** A content validity study was conducted which asked respondents to identify the qualities of each question in the LCQ-S. The dimensions used were similar to those identified by Connell, Carlton [5] as important when testing consumer self-report measures with consumers of mental health services.

To allow comparison between groups based on the level of psychological distress (as measured by the K-10), quotas were set for Studies Two and Three using each respondent's total K-10 score in Study One (Figure 1). For example, in Study Two, there was a quota of 200 participants for those with K-10 scores in the range 10-15, a quota of 100 participants for those with K-10 scores in the range 16-21 and a quota of 100 participants for those with scores in the range of 22-50. Once these quotas were reached participants were, using similar criteria, allocated to Study Three.

**Figure 1: Method map**[3]




## 3.1. Limitations

The main limitation of these studies is that online panels have a tendency to over-represent groups that have high access to online devices. This may affect the generalisability of the results to the general population.

[3] Sample sizes were slightly exceeded during the studies, only valid responses reported, numbers vary as a result of data cleaning.

While quotas may be set for participant characteristics, these are not always achievable in practice.

In addition, the current studies have been conducted with a sample of the general public and results may be different for mental health service consumers.

# 4. RESULTS

This section of the report provides a preliminary analysis of the results of Round Two of testing.

## 4.1. Completion times

The original LCQ took an average of 6.77 minutes to complete online. The LCQ-S took less than three minutes to complete (based on the times in Study Two):

> Study One, including the K-10 and demographic questions, took an average 3.65 minutes to complete.
>
> Study Two, including the additional reliability questions and demographics, took an average of 2.58 minutes to complete.
>
> Study Three, using the 5-point validity scale and the K-10, took the longest to complete at an average of 4.46 minutes.

The difference between test groups in the time taken to complete the online version was not statistically significant.

## 4.2. Study One: Psychological distress, regression and dimension reduction

### 4.2.1. Psychological distress

The K-10 was included with the LCQ-S (Study One) to measure psychological distress. Total scores were used to identify respondents with a low, medium or high K-10 score (Table 2).

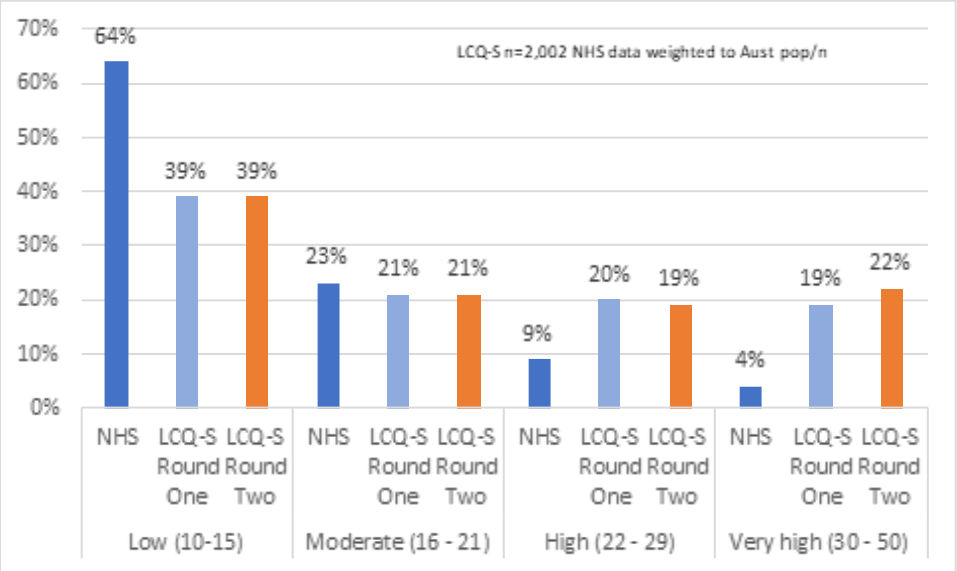
**Table 2: K-10 score for study 1**

| Aggregate K10 score | Number of responses |
|---|---|
| 10-15 (Low) | 774 |
| 16-21 (Medium) | 428 |
| 22-29 (High) | 370 |
| 30 – 50 (Very high) | 430 |

The levels of distress reported in this study were considerably higher than those found by the Australian Bureau of Statistics [6] in the National Health Survey (NHS) (Figure 2). A similar, result was found with the original LCQ development work. This effect is likely to be due to several factors, including:

- the consent process priming people with an interest in mental health to respond to the questionnaire; and
- respondents being more likely to report negative feelings online than through a personal interview.

**Figure 2: Comparison of K-10 scores between the NHS and the LCQ-S**




### 4.2.2. Regression

A cumulative odds ordinal logistic regression confirmed the underlying theoretical model used in the LCQ-S, that the social inclusion questions (Q1 to Q12) can predict the *sense of being part of a group or community* (Q13).[4] To test the model with people who have high psychological distress, the analysis was repeated for just those respondents who had a K-10 score of 22 or over. The model was also found to be predictive with this group[5].

For the distressed sample, the highest predictors (i.e. odds ratio >1.200) of the *sense of being part of a group or community* were (in order of magnitude):

[4] The model statistically significantly predicted the sense of being part of a group or community variable over and above the intercept-only model, $\chi 2(12) = 1116.477$, $p < .001$.

[5] The model statistically significantly predicted the sense of being part of a group or community variable over and above the intercept-only model, $\chi 2(12) = 1651.576$, $p < .001$.

- engagement in social activities with community groups or clubs[6]
- ability to get support from family or friends when you need it[7]
- confidence to have your say about issues that are important to you[8]
- participation in organised volunteer work [9]
- engagement in social activities with family or friends[10]
- good physical health[11].

### 4.2.3. Dimension reduction

A Principle Component Analysis (PCA) was conducted on the LCQ-S. A PCA is a statistical procedure used to identify patterns in data and group those questions that are more or less associated with each other. It provides insight into ways that data can be reduced for reporting purposes. The suitability of PCA was assessed prior to analysis. Inspection of the correlation matrix showed that all variables had at least one correlation coefficient greater than 0.3. The overall Kaiser-Meyer-Olkin (KMO) measure was 0.86. Bartlett's Test of Sphericity was statistically significant ($p < .0005$), indicating that the data was suitable for PCA and that the questions could be grouped into different factors.

The PCA revealed three components that had eigenvalues greater than one and which explained 29%, 13% and 8% of the total variance respectively.

The three-component solution explained 51% of the total variance. A Varimax orthogonal rotation and further simplification was employed to aid interpretability (See Table 3).

[6] Odds ratio 2.246, Wald $\chi^2(1) = 20.982$, $p = .001$.

[7] Odds ratio 1.823, Wald $\chi^2(1) = 50.975$, $p = .001$.

[8] Odds ratio 1.723, Wald $\chi^2(1) = 42.169$, $p = .001$.

[9] Odds ratio 1.649, Wald $\chi^2(1) = 7.153$, $p = .005$.

[10] Odds ratio 1.519, Wald $\chi^2(1) = 4.370$, $p = .001$.

[11] Odds ratio 1.486, Wald $\chi2(1) = 25.275$, p = .001.

**Table 3: Principal Component Analysis**

| | Component | | |
|---|---|---|---|
| | 1 Social identity | 2 Structured engagement | 3 Economic participation |
| Overall wellbeing | .867 | | |
| Hopefulness for the future | .825 | | |
| Physical health | .757 | | |
| Confidence to have your say about issues that are important to you | .754 | | |
| Ability to get support from family or friends when you need it | .752 | | |
| Sense of being part of a group or community | .695 | | |
| Feel lonely | .535 | | |
| Social activities with community groups or clubs | | .712 | |
| Organised volunteer work | | .711 | |
| Enrolled in a training or education course | | .638 | |
| Provide care (such as personal care, support or assistance) to a family member or friend | | .493 | |
| Suitable housing (constructed variable) | | | .753 |
| Social activities with family or friends | | | .578 |
| Paid employment (including if you were on leave) | | | .456 |
| Enough money to pay your bills | | | .409 |

## 4.3. Study Two: Test retest reliability

Reliability of the LCQ-S was measured by recruiting respondents from Study One to complete the questionnaire again (Study Two). The average time between repeated questionnaire completions was 58 hours (with a range from 16 to 95 hours). Study Two included an item to identify if the respondent's circumstances had changed between questionnaire completions in a way that might affect their results.

The LCQ-S includes questions measured on two scales. The first is a categorical scale using Yes/No responses. The second is a 5-point positively weighted Likert-style ordinal rating scale where responses range from poor to excellent.

The internal consistency of the measure was found to be better for the questions measured on the Likert-style scale (Cronbach's Alpha of 0.884) compared to the categorical questions measured on the binary scale (Cronbach's Alpha of 0.519). This is not surprising given the greater flexibility of the Likert scale.

LCQ-S questions were compared across Study One and Study Two using Spearman's rho ($r_s$), a nonparametric measure of association between ordinal and binary variables. It should be noted that $r_s$ generally provides lower correlation coefficients than Pearson's product-moment correlation[7]. For this reason, 0.600 was set as the benchmark for an acceptable correlation coefficient for this test retest study.

The overall average level of association using $r_s$ was 0.677 for all items excluding demographics. Reviewing just those questions that were revised since Round One (Table 4), revealed improvements in the reliability of questions 2 (social activities with groups/clubs), 5 (Course enrolment) and 8 (felt lonely). The reliability of question 6 (caring) declined when the definition was excluded. In contrast, question 7 (housing) was less reliable with the revisions. Further investigations of the housing questions suggested that this concept may be particularly sensitive to change.

**Table 4: Spearman's rho correlations for revised questions**

| Round One | $r_s$ | Round Two | $r_s$ |
|---|---|---|---|
| S1. In the last four weeks did you… | (n=407) | S1. In the last four weeks… | (n=400) |
| 1 Do any activities with family or friends? | 0.515 | 1. Did you do any social activities with family or friends? | 0.467 |
| 2. Do any activities with community or social groups? | 0.650 | 2. Did you do any social activities with community groups or clubs? | 0.676 |
| 5. Participate in any organised education or training? | 0.553 | 5. Were you enrolled in a training or education course? | 0.702 |
| 6. Provide unpaid care (such as personal care, support or assistance) to a family member or friend? This includes work for which you may have received a Carer Allowance or Carer payment)? | 0.710 | 6. Did you provide care (such as personal care, support or assistance) to a family member or friend? | 0.657 |
| 7. Have suitable housing (thinking about cost, location, security and space)? | 0.487 | 7a. Did you have suitable housing? OR<br>7b. Did you have adequate accommodation? | 0.377<br>0.342 |
| 8. Have enough social contact with other people? | 0.571 | 8. Did you feel lonely? | 0.718 |

To provide a better understanding of the reliability of these questions with mental health consumers, Spearman's rho correlation scores were also calculated for respondents who had seen a health professional for concerns about their mental health in the last 12 months and respondents with a K-10 score between 30-50, which aligns the ABS ' Very High' category [6]. Reliability coefficients were also calculated for respondents who indicated that their circumstances had not changed since they completed Study One (See Table 5).

Of particular interest is the higher reliability of question 7b (adequate accommodation) with respondents who had seen a health professional for concerns about their mental health ($r_s$ = 0.638) or who had a high K-10 score ($r_s$ = 0.796). While these findings are based on a reduced sample size, the results were significantly different from the lower reliability of the total sample. Further analysis revealed that there were 37 individuals who changed their ratings for questions 7a or 7b between the test and retest questionnaires. This group was twice as likely to have no social activities and not enough money to pay bills (30% compared to 15% for other respondents on both questions) – though this was not statistically significant. They also had a slightly elevated K-10 score.

## Table 5: Spearman's rho correlations for different participant characteristics

| | LCQ-S question | Total sample (n=400) | No change in circumstance (n=179) | Saw a health professional for mental health concerns (n=86) | High K-10 (30-50) (n=49) |
|---|---|---|---|---|---|
| YES/ NO RESPONSE FORMAT | 1. Did you do any social activities with family or friends? | 0.467 | 0.493 | 0.490 | 0.410 |
| | 2. Did you do any social activities with community groups or clubs? | 0.676 | 0.743 | 0.712 | 0.677 |
| | 3. Did you participate in any paid employment (including if you were on leave)? | 0.784 | 0.734 | 0.761 | 0.685 |
| | 4. Did you participate in any organised volunteer work? | 0.724 | 0.844 | 0.730 | 0.697 |
| | 5. Were you enrolled in a training or education course? | 0.702 | 0.705 | 0.811 | 0.682 |
| | 6. Did you provide care (such as personal care, support or assistance) to a family member or friend? | 0.657 | 0.679 | 0.715 | 0.466 |
| | 7a. Did you have suitable housing?*[12] | 0.377 | 0.383 | 0.342 | 0.571 |
| | 7b. Did you have adequate accommodation?* | 0.342 | 0.309 | 0.638 | 0.796 |
| | 8. Did you feel lonely? | 0.718 | 0.807 | 0.722 | 0.466 |
| | 9. Did you have enough money to pay your bills? | 0.689 | 0.702 | 0.706 | 0.788 |
| POOR TO EXCELLENT RESPONSE FORMAT | 10. Your sense of being part of a group or community | 0.704 | 0.796 | 0.638 | 0.673 |
| | 11. Your ability to get support from family or friends when you need it | 0.708 | 0.773 | 0.726 | 0.736 |
| | 12. Your confidence to have your say about issues that are important to you | 0.637 | 0.712 | 0.553 | 0.576 |
| | 13. Your physical health | 0.767 | 0.786 | 0.842 | 0.699 |
| | 14. Your hopefulness for the future | 0.768 | 0.784 | 0.816 | 0.789 |
| | 15. Your overall wellbeing | 0.798 | 0.822 | 0.861 | 0.754 |

[12] Reduced sample 50% of reported figure, different accommodation questions were offered.

## 4.4. Study Three: Content validity

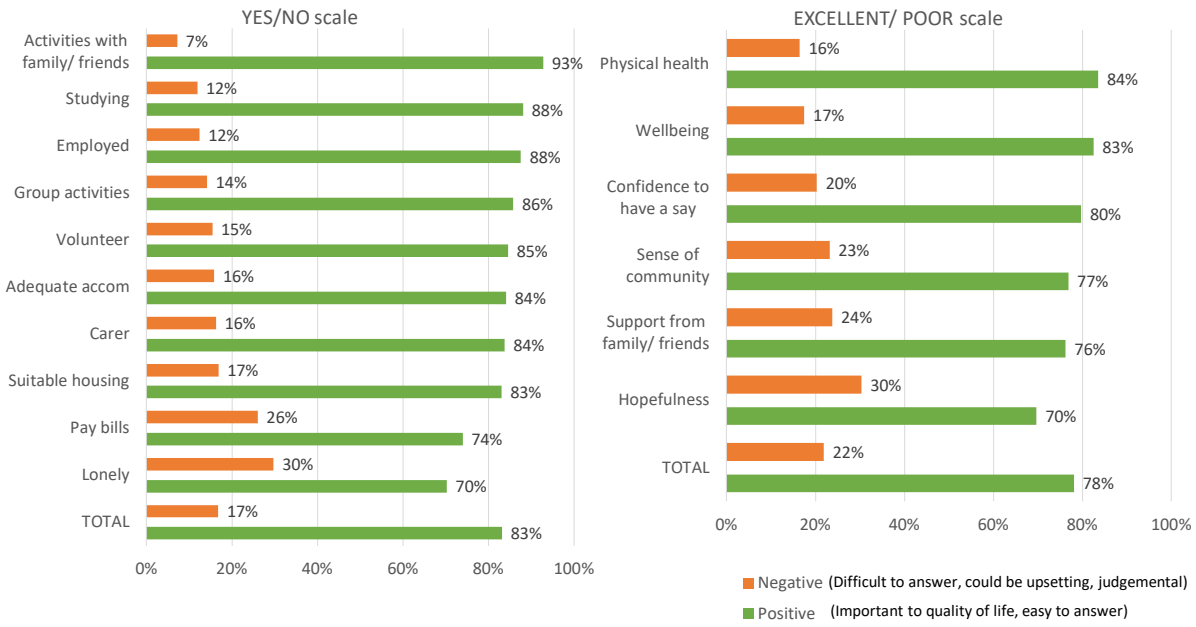
Respondents in Study Three were asked to review the LCQ-S and identify the characteristics of each question using a multiple response scale. We created a scale where respondents were asked to identify if the question did or did not have certain positive or negative attributes. These different attributes are described in Table 6. Respondents were asked to identify the positive or negative attributes of each LCQ-S question and could provide multiple responses.

**Table 6: Multiple response scale**

| | |
|---|---|
| Positive attributes | • This item is important to your quality of life<br>• This item is easy to answer |
| Negative attributes | • This item is difficult to read<br>• This item could be upsetting to answer<br>• This item is judgemental |

An analysis of the overall number of responses indicated that the questions in the LCQ-S were easy to understand (73%) and important to quality of life (14%). Few respondents considered the questions were difficult to answer (6%), upsetting (6%) or judgemental (2%).
The positive and negative response scales were combined to aid interpretation (Figure 3). For example, for the LCQ-S question *activities with family/friends,* only 7% of respondents endorsed this question as having a negative attribute, while 93% identified it as having a positive attribute. All questions had an overwhelmingly positive review. Two questions had negative ratings of 30% - hopefulness for the future and feel lonely.

**Figure 3: Response to questions**



Further analysis identified that some questions could be upsetting to people with high K-10 scores (See Table 7). For example, respondents with higher K-10 scores identified that the questions *hopefulness for the future*, and *lonely* could be upsetting when compared to those with lower K-10 scores.

**Table 7: Drivers of negative ratings**

| Sample size = 410 | | Low (K10 10-15) | Medium (K10 16-21) | High (K10 22-29) | Very High (K10 30-50) |
|---|---|---|---|---|---|
| **Hopefulness for the future** | This topic is important to your quality of life | 22% | 30% | 32% | 24% |
| | This item is easy to answer | 69% | 41% | 37% | 37% |
| | This item is difficult to answer | 11% | 21% | 30% | 15% |
| | Answering this item could be upsetting | 4% | **21%** | **25%** | **28%** |
| | This item is judgemental | 3% | 3% | 2% | 11% |
| **Lonely** | This topic is important to your quality of life | 16% | 19% | 19% | 13% |
| | This item is easy to answer | 77% | 54% | 51% | 33% |
| | This item is difficult to answer | 5% | 11% | 21% | 17% |
| | Answering this item could be upsetting | 9% | **28%** | **28%** | **43%** |
| | This item is judgemental | 3% | 5% | - | 4% |

## 4.5. LCQ-S modifications as a result of testing

The results from these three studies informed the construction of the final version of the LCQ-S. This included the adoption of questions that performed best in the test retest reliability study, in either Round One or Round Two. (See Table 8) The exception is the adoption of *adequate accommodation* as the most suitable descriptor for the housing question. This descriptor performed better with respondents who approximate the consumers of the mental health service population (i.e., high levels of psychological distress and/or who have seen a health professional because of their concerns about their mental health).

In addition, the word 'social' from question 2 (*activities with groups or clubs*) was deleted to maintain consistency with question 1 (*activities with family or friends*). It also helps clarify question 2 by making it explicit that the question focuses on the activities of community groups or clubs and not just social activities associated with them.

**Table 8: Final changes to the LCQ-S**

| Questions tested in Round One | Questions tested in Round Two | Final questions for use in LCQ-S |
|---|---|---|
| In the last four weeks did you… | In the last four weeks… | In the last four weeks… |
| 1. Do any activities with family or friends? | Did you do any social activities with family or friends? | Did you do any activities with family or friends? |
| 2. Do any activities with community or social groups? | Did you do any social activities with community groups or clubs? | Did you do any activities with community groups or clubs? |
| 5. Participate in any organised education or training? | Were you enrolled in a training or education course? | Were you enrolled in a training or education course? |
| 6. Provide unpaid care (such as personal care, support or assistance) to a family member or friend? This includes work for which you may have received a Carer Allowance or Carer payment)? | Did you provide care (such as personal care, support or assistance) to a family member or friend? | Did you provide care (such as personal care, support or assistance) to a family member or friend? This includes work for which you may have received a Carer Allowance or Carer payment)? |
| 7. Have suitable housing (thinking about cost, location, security and space)? | Did you have suitable housing? OR Did you have adequate accommodation? | Did you have adequate accommodation? |
| 8. Have enough social contact with other people? | Did you feel lonely? | Did you feel lonely? |

# 5. CONCLUSION

The LCQ-S was able to measure the concepts of the LCQ in a simple and reduced format. The test retest reliability of the questionnaire overall is good and the revisions, based upon two rounds of testing, have resulted in a measure with greater clarity and readability. The LCQ-S may be suitable to measure indicators of the Fifth Plan:

- **PI 8. Connectedness and meaning in life**
  An indicator for *Connectedness and meaning in life*, could be developed from the question *sense of being part of a group or community.* This could be constructed in a number of ways. Firstly, the indicator could be constructed by taking the average of available ratings and multiplying by 20, to give you an index out of 100. Alternatively, the indicator could be developed by calculating the proportion of available ratings that were scored in the very good to excellent range.

- **PI 9. Rate of social/community/ family participation amongst people with mental illness**
  An indicator for *social/community/ family participation* is the proportion of consumers with a mental illness reporting participation with family, social and community groups. The questions *did you do any activities with family or friends* or *did you do any activities with community groups or clubs* could be used to construct an indicator. A simple indicator could be the proportion of available ratings that checked yes to both questions.

- **PI 12. Proportion of mental health consumers in suitable housing**
  An indicator for *suitable housing* could be developed from the question d*id you have adequate accommodation*. A simple indicator could be the proportion of available ratings that checked yes to this question.

The construction of indicators and the reporting of the LCQ-S will benefit from the collection of additional data. This will enable the construction of more nuanced and sophisticated indicators. During its development, the LCQ demonstrated clinical utility and enthusiasm for its use. This summary version of the LCQ, given its brevity, has even greater potential for clinical utility in public mental health services. Making the LCQ-S available for use will enable the collection of additional evidence of its clinical utility and its use for indicator construction and reporting.

# APPENDIX A: LCQ-S FINAL

## Living in the Community Questionnaire – Summary

This questionnaire is designed to explore aspects of your life in the community including your social activities, participation in employment or study, your living situation and your physical health care. The questionnaire is to be completed by people aged 16 years and older. Completion of the questionnaire is voluntary. Your personal information, including answers to this questionnaire, is covered by the privacy laws in your state or territory.

(Please select one response for each statement)

| In the last four weeks… | YES | NO |
|---|---|---|
| 1. Did you do any activities with family or friends? | | |
| 2. Did you do any activities with community groups or clubs? | | |
| 3. Did you participate in any paid employment (including if you were on leave)? | | |
| 4. Did you participate in any organised volunteer work? | | |
| 5. Were you enrolled in a training or education course? | | |
| 6. Did you provide care (such as personal care, support or assistance) to a family member or friend? This includes work for which you may have received a Carer Allowance or Carer payment. | | |
| 7. Did you have adequate accommodation? | | |
| 8. Did you feel lonely? | | |
| 9. Did you have enough money to pay your bills? | | |

| In general, how would you rate…<br>(Please select one response for each statement) | | | | | |
|---|---|---|---|---|---|
| | Poor | Fair | Good | Very good | Excellent |
| 10. Your physical health | 1 | 2 | 3 | 4 | 5 |
| 11. Your ability to get support from family or friends when you need it | 1 | 2 | 3 | 4 | 5 |
| 12. Your confidence to have your say about issues that are important to you | 1 | 2 | 3 | 4 | 5 |
| 13. Your sense of being part of a group or community | 1 | 2 | 3 | 4 | 5 |
| 14. Your hopefulness for the future | 1 | 2 | 3 | 4 | 5 |
| 15. Your overall wellbeing | 1 | 2 | 3 | 4 | 5 |

**Demographics used for testing - not part of the LCQ-S**

| | | |
|---|---|---|
| D1. | What is your gender?<br>(Please select one response) | 1. Male<br>2. Female<br>98. Other |
| D2. | What is the main language you speak at home?<br>(Please select one response) | 1. English<br>98. Other (Please specify) |
| D3. | Are you of Aboriginal and/or Torres Strait Island origin?<br>(Please select one response) | 1. Yes, Aboriginal<br>2. Yes, Torres Strait Islander<br>3. Yes, Aboriginal and Torres Strait Islander<br>4. No |
| D4. | What is your age?<br>(Please select one response) | 1. Under 18 years<br>2. 18 to 24 years<br>3. 25 to 34 years<br>4. 35 to 44 years<br>5. 45 to 54 years<br>6. 55 to 64 years<br>7. 65 years and over |
| D5. | Are you a qualified health professional? (Select all that apply) | 1. No<br>2. Yes - Nurse<br>3. Yes - General practitioner<br>4. Yes – Psychiatrist<br>5. Yes - Psychologist<br>6. Yes – Social worker<br>7. Yes – Disability support worker<br>8. Yes – Allied health professional<br>9. Yes - Other health professional (Specify)<br>10. Don't know |
| D6. | Have you seen a health professional because of concerns about your mental health in the last 12 months?<br>(Please select one response) | 1. Yes<br>2. No<br>3. Prefer not to answer<br>4. Don't know |

# APPENDIX B: KESSLER-10

## The Kessler-10 (K-10)

### Instructions

The following ten questions ask about how you have been feeling in the **last four weeks**. For each question, mark the circle under the option that best describes the amount of time you felt that way.

| | | None of the time | A little of the time | Some of the time | Most of the time | All of the time |
|---|---|---|---|---|---|---|
| **1.** | In the last four weeks, about how often did you feel tired out for no good reason? | ○ | ○ | ○ | ○ | ○ |
| **2.** | In the last four weeks, about how often did you feel nervous? | ○ | ○ | ○ | ○ | ○ |
| **3.** | In the last four weeks, about how often did you feel so nervous that nothing could calm you down? | ○ | ○ | ○ | ○ | ○ |
| **4.** | In the last four weeks, about how often did you feel hopeless? | ○ | ○ | ○ | ○ | ○ |
| **5.** | In the last four weeks, about how often did you feel restless or fidgety? | ○ | ○ | ○ | ○ | ○ |
| **6.** | In the last four weeks, about how often did you feel so restless you could not sit still? | ○ | ○ | ○ | ○ | ○ |
| **7.** | In the last four weeks, about how often did you feel depressed? | ○ | ○ | ○ | ○ | ○ |
| **8.** | In the last four weeks, about how often did you feel that everything was an effort? | ○ | ○ | ○ | ○ | ○ |
| **9.** | In the last four weeks, about how often did you feel so sad that nothing could cheer you up? | ○ | ○ | ○ | ○ | ○ |
| **10.** | In the last four weeks, about how often did you feel worthless? | ○ | ○ | ○ | ○ | ○ |

SOURCE: *Mental Health National Outcomes and Casemix Collection: Overview of clinician-rated and consumer self-report measures, Version 1.50*. Department of Health and Ageing, Canberra, 2003

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