Exploring Burnout in Australia’s Landcare Program: A Case Study in the Shepparton Region

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The community Landcare program represents an important element of Australia’s approach to sustainable development. However, there is increased concern about burnout in volunteer Landcare participants. Until now, investigations of burnout in Landcare had largely failed to draw on international literature relating to the burnout concept. This article reviews findings from a regional case study of Landcare participants that used a modified version of the Maslach Burnout Inventory (MBI). Survey findings demonstrated that the modified version of the MBI was valid and reliable. A small proportion of individuals were experiencing high levels of burnout, and results indicate considerable potential for burnout to increase.

Keywords burnout, community participation, Landcare, volunteers

The Landcare program operating in Australia since 1986 has been widely acclaimed as a useful model of community action contributing to more sustainable management of natural resources (Campbell 1994; Curtis 1998). As other countries establish similar watershed groups, the experience with Landcare provides important lessons about sustaining these groups.

Landcare is based on voluntary community participation and is ultimately concerned with contributing to more sustainable resource use through partnerships between communities and government (Alexander 1995; Campbell 1994). Chamala (1995) describes Landcare in terms of a participative action model where empowered community-based groups of stakeholders work together to manage resources in a sustainable manner. Landcare groups are not organs of the state, nor are they purely social organizations. The modus operandi and activities of these groups are not prescribed. Using Eisman and Uphoff’s (1984, 18) definition, they are best described as local organizations “which act on behalf of and are accountable to their membership and which are involved in development activities.” From a government perspective, Community Landcare was a catalytic program attempting to engage a large proportion of the rural population and produce more aware, informed, skilled, and

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901
adaptive resource managers with a stronger stewardship ethic and more sustainable resource management practices (Curtis and De Lacy 1996). Landcare was intended to achieve more sustainable use of Australia’s farming lands and enhance biodiversity. Until 1997, Landcare involved limited government funding of education and demonstration activities, as opposed to direct funding of large-scale, on-ground work. The Australian government committed $1.25 billion for biodiversity conservation and sustainable agriculture through the Natural Heritage Trust (NHT). The NHT focuses on funding on-ground works that will contribute to improved environmental conditions and represents the largest financial commitment to environmental action by any federal government (Natural Heritage Trust 1999). Landcare groups are now an important delivery mechanism for the NHT (Curtis and Lockwood 1998).

NHT expenditure has significantly increased the activity level of many Landcare groups (Curtis 2000). At the same time, state governments have cut their extension support in rural areas. Several authors have also highlighted critical, ongoing Landcare group management issues. These management issues include inadequate support with group coordination; limited training to develop the leadership and management skills of group leaders; inadequate leadership succession planning; and ineffective priority setting and catchment planning (Lockie 1992; Alexander 1995; Curtis 2000). Campbell (1992) and Curtis and Van Nouhuys (1999) identified the potential for burnout in Landcare. Chamala (1990) provided a more detailed discussion of burnout in Landcare and drew from a small sample of international literature to identify symptoms, remedies, and possible preventative measures. Chamala (1990) highlighted the importance of groups being aware of the symptoms of burnout and strategies that can mitigate its occurrence. These authors did not draw on the large international body of theory relating to burnout to define or measure burnout in Landcare.

This article discusses findings from the first case study using a validated psychometric measure to explore burnout in Landcare participants. We begin by providing a summary of the burnout concept and previous research about factors related to burnout. We then report findings from our study in the Shepparton Irrigation Region (SIR) in the state of Victoria and highlight some of the management strategies that should reduce burnout.

Background

Burnout

The term burnout was first used to describe a social problem identified in the 1970s in human service occupations in the United States (Maslach and Schaufeli 1993). Since then, this initial research investigating burnout has spread from human service occupations in the United States to embrace a broad range of occupational and volunteer settings. While there is no single accepted definition of burnout, there are aspects considered central to the phenomenon. These core characteristics are: Burnout is not simply an end state but a process; some form of exhaustion is a crucial element; burnout involves a negative shift in a person’s perception; and burnout is associated with problems of reduced professional effectiveness and accomplishment (Freudenberger and Richelson 1980; Maslach 1998).

The Maslach Burnout Inventory (MBI) is the most widely used and accepted burnout measurement tool (Schaufeli et al. 1993). More psychometric research has been completed using the MBI than any other burnout measure (Maslach 1998). The MBI measures burnout on three subscales (emotional exhaustion, depersonalization,
and personal accomplishment), consistent with the author’s definition of burnout as “a syndrome of emotional exhaustion, depersonalization, and reduced personal accomplishment that can occur among individuals who work with people in some capacity” (Maslach et al. 1996, 4). The MBI consists of 22 statements (9 for the emotional exhaustion subscale, 5 for the depersonalization subscale, and 8 for the personal accomplishment subscale) with a 7-point frequency response (Table 1). The MBI test manual includes demographic norms for each subscale and provides cutoff points that allow scores to be assigned as high, medium, or low. The demographic norms are the mean scores on each subscale of the MBI for a sample of 11,000 human service employees. These values do not allow determination of a specific point where an individual is burnt out.

Three different sets of factors have been identified as contributing to burnout. Most authors identify individual, organizational, and societal factors (Freudenberger 1982; Maslach 1998). The work setting or organizational factors are considered the major contributor to burnout, and it is the organizational setting where interventions are most likely to have an impact (Cherniss 1980; Maslach and Leiter 1997). The main

<table>
<thead>
<tr>
<th>TABLE 1 General Content of Scale Items in the Modified Maslach Burnout Inventory (Adapted from Maslach et al. 1996)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Emotional exhaustion</strong></td>
</tr>
<tr>
<td>1. Emotionally drained from Landcare.</td>
</tr>
<tr>
<td>2. Used up after Landcare activities.</td>
</tr>
<tr>
<td>3. Fatigued by Landcare.</td>
</tr>
<tr>
<td>4. Working with Landcare members a strain.</td>
</tr>
<tr>
<td>5. Burned out from Landcare.</td>
</tr>
<tr>
<td>6. Frustrated by Landcare.</td>
</tr>
<tr>
<td>8. Working with Landcare members stressful.</td>
</tr>
<tr>
<td>9. At end of rope.</td>
</tr>
<tr>
<td><strong>Depersonalization</strong></td>
</tr>
<tr>
<td>10. Treat Landcare members impersonally.</td>
</tr>
<tr>
<td>11. More callous.</td>
</tr>
<tr>
<td>12. Landcare hardening me emotionally.</td>
</tr>
<tr>
<td>13. Don’t care about Landcare members.</td>
</tr>
<tr>
<td><strong>Personal accomplishment</strong></td>
</tr>
<tr>
<td>15. Understand how Landcare members feel.</td>
</tr>
<tr>
<td>16. Deal with problems effectively.</td>
</tr>
<tr>
<td>17. Have a positive influence through Landcare.</td>
</tr>
<tr>
<td>18. Energetic.</td>
</tr>
<tr>
<td>19. Relaxed with Landcare members.</td>
</tr>
<tr>
<td>20. Exhilarated by working with Landcare members.</td>
</tr>
<tr>
<td>21. Accomplished a lot.</td>
</tr>
<tr>
<td>22. Deal with emotional issues calmly.</td>
</tr>
</tbody>
</table>

Note. Full wording of original scale items appears in Maslach et al. (1996).
organizational factors contributing to burnout include high activity levels; unclear goals, plans, and expectations; poor monitoring and feedback processes; and poor leadership/support (Freudenberg 1982; Maslach and Leiter 1997).

Data Collection

The data discussed in this article were principally drawn from a 1999 mailed survey of Landcare members and leaders in the Shepparton Irrigation Region (SIR). The survey incorporated a modified version of the MBI and questions seeking information about factors identified as possible contributors to burnout in Landcare participants. Survey design and mail-out procedures followed Dillman’s (1979) total design method. The survey sample consisted of 300 members, randomly selected from 32 Landcare groups (with a total membership of more than 1200), and a census of all group leaders (88) from the 47 Landcare groups in the SIR. Because some leaders were also selected in the members sample, there was a total of 375 possible respondents. A final response rate of just over 71% was achieved.

The original MBI was developed for use in human service occupations, and Maslach and Jackson (1986) concluded that research that attempted to examine burnout in non-human-service occupations needed to revise the wording of the MBI and establish evidence of scale validity and reliability. In light of this conclusion, minor modifications were made to scale statements and wording of the response options to increase the relevance of the MBI to Landcare participants. Modifications made to the MBI scale items were made in accordance with Golembiewski et al. (1986), who provided extensive validation of a similarly modified version of the MBI in a diverse range of occupational settings. As suggested by Maslach et al. (1996), MBI scale items appeared together in the questionnaire in the order specified in the MBI test manual. There is considerable justification for applying the MBI and demographic norms to Landcare. In the first instance, the MBI has been successfully employed in studies of burnout with volunteers (Claxton et al. 1998). Other researchers have used and extensively validated the MBI outside human service occupations (Golembiewski et al. 1986). There have also been studies validating the MBI in the Australian context (Mark et al. 1989).

Findings

Reliability and Validity of the Modified MBI

The MBI has been widely used and validated in research around the world exploring burnout in a range of occupational and volunteers settings. The purpose of selecting the MBI was to rely on a validated research instrument.

The internal consistency of the modified MBI was tested using Cronbach alpha estimates. de Vaus (1991) suggested that an alpha value above .70 indicates that a scale is reliable. Only one item (item 15) was unreliable, and removing this item increased the alpha for that subscale (Table 1). The Cronbach alpha values for each subscale of the modified MBI were as follows: emotional exhaustion .88, depersonalization .68, and personal accomplishment .80 (with one item deleted). These figures are comparable to those outlined in the MBI test manual for emotional exhaustion .86, and personal accomplishment .77, but below the depersonalization score of .76 (Maslach et al. 1996). While the depersonalization value is slightly below the accepted value of .70, Schaufeli and Enzmann (1998) stated that values below .70
are sometimes found and may be a result of the subscale containing fewer items. The depersonalization component is also considered the least robust component of burnout (Schaufeli et al. 1993).

Confirmatory factor analysis provided support for the three-factor structure of burnout as defined by the MBI. The three factor model was assessed against a two-factor structure where emotional exhaustion and depersonalization were treated as a single factor and then against a single factor structure where all items were loaded onto the same factor. All goodness-of-fit statistics indicated that the three-factor structure was superior. While the three-factor structure was found to be superior, the goodness-of-fit statistics were below the commonly accepted values (90 for GFI, AGFI, NNFI, CFI, and .090 for RMSEA) (Table 2). Items 8 and 18 had high cross-loadings, items 1 and 2 were highly cross-correlated, and items 14 and 15 had high errors. Similar issues have occurred in other research (Byrne 1993; Boles et al. 2000). Following the approach of Boles et al. (2000), items 2, 8, 14, 15, and 18 were removed from goodness-of-fit analyses. This approach improved the goodness of fit; however, values remained just below the commonly accepted levels (Table 2).

The modified MBI also demonstrated face validity with scores on each subscale correlated with organizational factors expected to explain variance on burnout scores (described later).

Given that Maslach’s three-factor structure of burnout was replicated in this research and that the modified MBI demonstrated internal consistency and face validity, reliance on previous work validating the MBI seems justified.

**The Extent of Burnout in Landcare Leaders and Members**

To assess burnout among Landcare participants, individuals’ scores on each of the MBI subscales were compared to demographic normative values outlined in the MBI test manual. The MBI does not produce a single score; rather, it produces three scores, one for each element of burnout—emotional exhaustion (where a high score indicates high burnout), depersonalization (where a high score indicates high burnout), and personal accomplishment (where a low score indicates high burnout).

**Emotional Exhaustion**

Thirty percent of leaders and 12% of members had scores on the emotional exhaustion subscale above the demographic norm (20.99 on a scale of 0–54) (Table 3). Leaders experienced significantly higher levels of emotional exhaustion than members (Mann–Whitney U = 2566, Z = -4.753, p = .000). Respondents can
TABLE 3 Mean Burnout Scores and Classification for Landcare Members and Leaders, Shepparton Irrigation Region, 1999 (n = 237)

<table>
<thead>
<tr>
<th>Sample</th>
<th>Mean</th>
<th>Range</th>
<th>SD</th>
<th>SE</th>
<th>Emotional exhaustion</th>
<th>Depersonalization</th>
<th>Personal accomplishment</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>n</td>
<td></td>
<td></td>
<td></td>
<td>High</td>
<td>Medium</td>
<td>Low</td>
</tr>
<tr>
<td>Leaders and members</td>
<td>200</td>
<td>10.44</td>
<td>0-46</td>
<td>10.10</td>
<td>0.71</td>
<td>7%</td>
<td>18%</td>
</tr>
<tr>
<td>Members only</td>
<td>136</td>
<td>8.17</td>
<td>0-41</td>
<td>8.76</td>
<td>0.75</td>
<td>4%</td>
<td>14%</td>
</tr>
<tr>
<td>Leaders only</td>
<td>64</td>
<td>15.31</td>
<td>0-46</td>
<td>11.06</td>
<td>1.38</td>
<td>14%</td>
<td>25%</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Emotional exhaustion</td>
<td>Depersonalization</td>
<td>Personal accomplishment</td>
</tr>
<tr>
<td>Leaders and members</td>
<td>200</td>
<td>4.00</td>
<td>0-26</td>
<td>4.66</td>
<td>0.33</td>
<td>6%</td>
<td>16%</td>
</tr>
<tr>
<td>Members only</td>
<td>136</td>
<td>3.83</td>
<td>0-24</td>
<td>4.68</td>
<td>0.40</td>
<td>7%</td>
<td>14%</td>
</tr>
<tr>
<td>Leaders only</td>
<td>64</td>
<td>4.34</td>
<td>0-26</td>
<td>4.61</td>
<td>0.58</td>
<td>5%</td>
<td>20%</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Emotional exhaustion</td>
<td>Depersonalization</td>
<td>Personal accomplishment</td>
</tr>
<tr>
<td>Leaders and members</td>
<td>200</td>
<td>25.74</td>
<td>0-44</td>
<td>8.43</td>
<td>0.59</td>
<td>75%</td>
<td>21%</td>
</tr>
<tr>
<td>Members only</td>
<td>136</td>
<td>24.89</td>
<td>0-41</td>
<td>8.32</td>
<td>0.71</td>
<td>80%</td>
<td>16%</td>
</tr>
<tr>
<td>Leaders only</td>
<td>64</td>
<td>27.55</td>
<td>0-44</td>
<td>8.44</td>
<td>1.05</td>
<td>63%</td>
<td>34%</td>
</tr>
</tbody>
</table>

Also be assigned high, medium, or low burnout classifications for each subscale using predetermined cutoff points outlined in the MBI test manual (Maslach et al. 1996). High scores on emotional exhaustion are considered to be scores of 27 and above, medium 17-26, and low 16 or below. A high assignment indicates a greater risk of burnout. Seven percent of all respondents had high levels of emotional exhaustion. Again, there was a larger proportion of leaders (14%) experiencing high levels of emotional exhaustion compared to members (4%) (Table 3).

**Depersonalization**

Nine percent of leaders and 15% of members had scores on depersonalization above the demographic norm (8.73 on a scale of 0-30) (Table 3). There was no significant difference between scores on the depersonalisation subscale for leaders and members (Mann-Whitney $U = 3926$, $Z = -1.216$, $p = .224$). Using the predetermined cutoff points, high scores on depersonalization are considered scores of 13 and above, medium 7-12, and low 6 or below. A high assignment indicates a greater risk of burnout. Overall, 6% of respondents had high levels of depersonalization (Table 3).

**Personal Accomplishment**

Keeping in mind that low scores on personal accomplishment reflect increased burnout, 80% of leaders and 90% of members had scores below the demographic norm (34.58 on a scale of 0-48) (Table 3). Leaders scored significantly higher on the personal accomplishment subscale compared to members (Mann-Whitney $U = 3581$, $Z = -2.092$, $p = .036$). Using the predetermined cutoff points, high scores on personal accomplishment are scores of 31 and below, medium 32-38, and low 39 or above. A high assignment indicates a greater risk of burnout. Overall, 75% of respondents had levels of personal accomplishment indicating high burnout. There was a higher proportion of members (80%) compared to leaders (63%) experiencing levels of personal accomplishment related to high burnout (Table 3).
Factors Associated with Increased Burnout in Landcare Participants

Stepwise multiple regression analysis was used to identify variables associated with burnout on each of the three subscales of the modified MBI.

Emotional Exhaustion

Increased levels of emotional exhaustion were significantly associated ($F = 15.888$, $df = 3$, $p < .001$, $R^2 = .214$) with negative evaluations of group leadership ($t = 3.14$, $p = .002$), attendance at a higher proportion of Landcare activities ($t = 3.91$, $p < .001$), and the perception that in their group some important things just don’t get done ($t = 2.11$, $p = .036$).

Depersonalisation

Increased levels of depersonalization were significantly associated with male respondents ($F = 4.117$, $df = 1$, $p = .044$, $R^2 = .021$, $t = 2.05$, $p = .042$). Maslach (1998) stated that males are less oriented toward close personal contact and thus more likely to suffer depersonalization. Pines and Aronson (1988) stated that strong social relationships are a strong buffer against burnout. The strong sense of community and shared purpose fostered through Landcare (Campbell 1997) is likely to be an important factor explaining low levels of depersonalization in Landcare participants.

Personal Accomplishment

Low scores on the personal accomplishment subscale (high burnout) were significantly associated ($F = 9.697$, $df = 1$, $p < .001$, $R^2 = .172$) with respondents who attended a smaller proportion of all Landcare activities ($t = 2.94$, $p = .004$); spent fewer hours on Landcare activities ($t = 2.67$, $p = .008$); spent more hours per week on farming-related activities ($t = -3.69$, $p < .001$); and felt that their group did not prioritize their Landcare activities ($t = 2.47$, $p = .014$).

Discussion

Regression analysis explained only a small amount of the variance in burnout scores. This reflects the complex nature of burnout. However, the consistency of these results with factors outlined as contributing to burnout in other research (Freudenberger 1982; Maslach and Leiter 1997), and with Landcare group management issues identified by Landcare researchers, confirms the relevance of the MBI and burnout theory for Landcare.

At present a majority of respondents in the SIR do not appear to be experiencing high levels of burnout. However, survey data suggest that burnout is likely to become more prevalent. Survey findings show that higher Landcare activity was associated with increased burnout in that the proportion of all Landcare group activities attended was significantly associated with increased emotional exhaustion. Landcare groups in the SIR are currently experiencing historically high levels of activity (Curtis 2000). This finding is consistent with a state-wide trend of historically high levels of Landcare group activity and the finding that higher levels of group activity were significantly associated with increased government funding (Curtis 2000). At the same time, there has been reduced agency extension support for Landcare groups, and this has contributed to increased administrative workloads for volunteers and growing disillusionment about the sincerity of government commitments to Landcare (Curtis 2000).
Survey data from the SIR also highlighted links between Landcare group management issues and higher levels of burnout. Negative evaluations of leadership (12% said leaders ineffective, 15% unsure), lack of priority-setting processes (30% were not aware of their group undertaking priority setting), and feelings that some important things do not get done (33% agreed, 22% unsure) were respectively associated with significantly increased emotional exhaustion, reduced personal accomplishment, and increased emotional exhaustion. These variables have been identified as ongoing Landcare group management issues across the state of Victoria (Curtis 2000).

Analysis of SIR survey data highlighted the high proportion of respondents experiencing low levels of personal accomplishment, indicative of high burnout. High levels of on-farm work were associated with decreased personal accomplishment. Survey respondents reported high levels of on-farm work with a mean of 50 hours per week. Thirty percent of respondents also worked off the farm with a mean of 30 hours per week. On-farm or off-farm work was considered the most important factor in accounting for changes in the level of a respondent’s Landcare activity over time. In addition, respondents in the SIR also reported high family commitments (52%) and substantial commitments to other volunteer organizations (36%) as factors affecting their level of Landcare activity.

Given the significant relationship between lower Landcare activity and increased burnout on the personal accomplishment subscale, higher levels of participation could help. However, increased participation does not appear to be a viable management option, given research findings illustrating high time commitments of rural people and the link between increased emotional exhaustion and higher activity. It seems that efforts to address burnout need to be part of a more determined and coherent approach to supporting Landcare groups. This study and other research suggests there is a need for clear and realistic expectations of what Landcare and Landcare participants can achieve; for groups to undertake regular priority setting; for the use of monitoring and feedback processes to reinforce accomplishments; for improved mechanisms for induction and training of participants; for better leadership training and leadership succession planning; and for raising the awareness of burnout and the management of burnout in a constructive manner through burnout workshops.

Conclusions

This article highlights the relevance of applying burnout theory to the management of Landcare groups in Australia. Analysis of the SIR survey data demonstrated that the modified version of the MBI used in this study was both valid and reliable.

In the SIR only a small proportion of individuals appear to be experiencing high levels of burnout. However, there is considerable potential for burnout to increase. Landcare activity has been geared up through the NHT and is at historically high levels. This research highlighted links between higher activity and increased burnout. A number of ongoing Landcare group management issues were also associated with higher levels of burnout in this study. These findings are consistent with Curtis’s (2000) assessment that these management issues are undermining the capacity of Australia’s Landcare program to deliver improved environmental outcomes.

This research represented the first attempt to adapt a validated psychometric measurement instrument to investigate burnout in Landcare. Clearly, there is a need for additional studies to establish demographic norms for burnout in Landcare. Future research should also investigate the onset and progression of burnout.
References


