IMPACT REPORT

Eight-week Yoga intervention with Foster Care Workers and Staff at KARI

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Background. Established in 1999 and based across Sydney, KARI is the largest Aboriginal foster care agency in Australia. The mission at KARI Limited is to build strength in families and services that are available to Indigenous youth and communities. The aim is and help Aboriginal families, youth and communities to flourish.

The Role of Staff and Carers. The foster carers take on a role that is life changing both to the children and young people they care for, and for themselves. Caring for a young person has an impact on a person's emotional, physical and mental wellbeing, and requires constant dedication and commitment. Both staff and carers are vulnerable to high levels of stress due to the emotional impact of their professional caring roles.

The Yoga Intervention. Staff and carers were offered one-hour weekly trauma informed yoga sessions for Term 4 in 2019. The staff and carers completed the sessions as two separate groups, on the premises of KARI. Classes consisted of breathing exercises, gentle yoga and guided relaxation. The aims were to: inspire psychological calm through focus on breath; improve physical well-being, body awareness & relaxation through movement; improve mind-body connection by providing a safe place for participants to explore themselves. Part of the trauma informed approach to yoga prescribes that attendance at the groups is not compulsory, therefore participants were able to attend as many or as few sessions as they liked. As a result, not all the participants completed follow-up measures.

Measures of stress and wellbeing. Participants completed standardised measures before and after the term of yoga sessions.

- The Kessler Psychology Distress Scale (K-10; Andrews & Slade, 2001) is recommended as a measure of psychology distress and as a measure of

outcomes following treatment for common mental health disorders. Participants respond to 10 items that indicate how often they experienced a certain feeling in the past 4 weeks (e.g. About how often did you feel nervous?). Scoring is on a scale of 1 (none of the time) to 5 (all of the time). Scores range from 10 to 50, with higher scores indicating higher levels of distress. The mean score from a national survey in Australia was 14.2 (Andrews & Slade, 2001).

- The PCL-5 is a checklist for symptoms of Post-Traumatic Stress Disorder according to the DSM-5 (Weathers et al., 2013). Participants respond to 20 items that indicate how much they were bothered by a particular problem they may have experienced in response to a stressful situation in the last month (e.g. Repeated, disturbing dreams of the stressful experience?). Scoring is on a scale of 0 (Not at all) to 4 (Extremely). Scores range from 0 to 80, with higher scores indicating higher levels of stress. A score of 38 is taken to indicate significant symptoms of PTSD (Weathers et al., 2013).

- The Professional Quality of Life Scale (ProQOL; Hudnall Stamm, 2009) was completed by the staff only. This is a measure of the positive and negative experiences a person has in their professional role as a carer. Participants respond to 30 items that indicate how frequently they experienced certain thoughts and feelings in the last 30 days (e.g. My work makes me feel satisfied). Scoring is on a scale of 1 (Never) to 5 (Very Often). Three subscale scores are produced: Burnout (higher scores indicate higher feelings of difficulty completing work and hopelessness), Secondary Traumatic Stress or Vicarious Trauma (higher scores indicate higher levels of stress at work), and Compassions Satisfaction (higher scores indicate higher levels of professional satisfaction).

- Carers also answered open-ended questions relating to their perceived change in flexibility, balance, sleep quality and stress levels. Qualitative comments regarding the experience and any positive and negative feedback were recorded.

Participants. 13 foster carers (age 19 – 62 years, mean 46 years) took part; 6 completed post-intervention measures (age 32 – 62 years, mean 51 years). Of those that completed post-intervention measures, an average of 4.3 sessions were attended. 10 staff members (age 21 – 53 years, mean age: 32 years) took part; 8 completed post-intervention measures (age 21 – 53 years, mean 33 years). Of those that completed follow-up measures, an average of 5.9 sessions were attended.

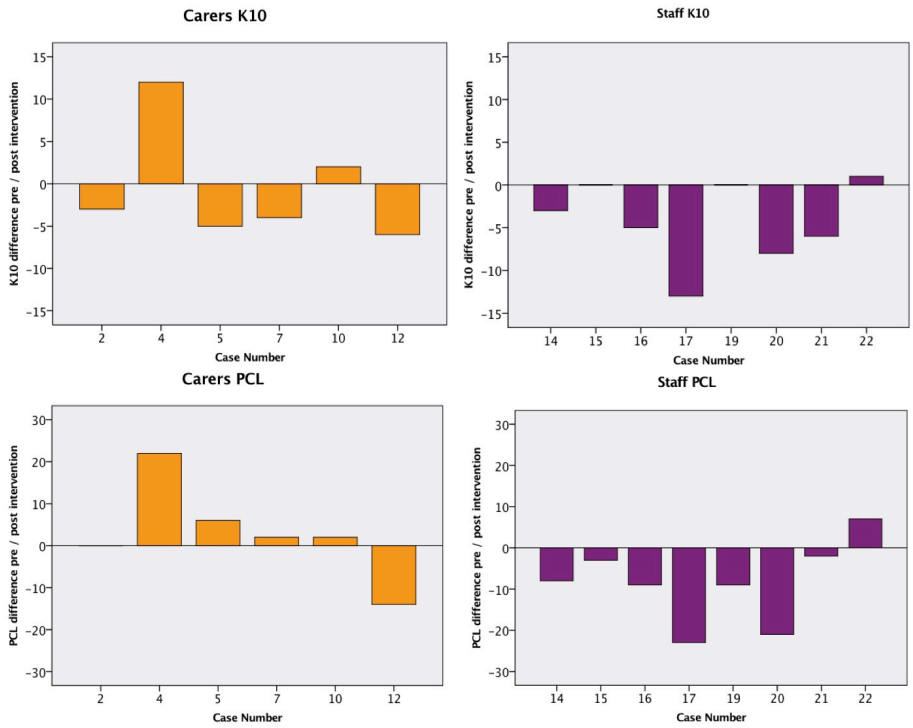
Carers were significantly older than staff, t (12) = 3.09, t = 0.009.

Results

Questionnaire data. Analyses were conducted on data of those participants that completed the post-intervention measures. Parametric paired-samples t-tests were used (assumptions of normality were met according to the Shapiro-Wilks test conducted on pre-post-intervention difference scores of K-10, PCL-5 and ProQOL, p's > 0.05).

	Carers			Staff		
	Pre	**Post**	**t-test results, Effect Size (d)**	**Pre**	**Post**	**t-test Effect Size (d)**
K-10	21.2 SD = 5.3	20.5 SD = 8.9	*No sig. diff.* t (5) = 0.24, p = 0.82 *d* = 0.24	19.3 SD = 6.4	15.0 SD = 2.6	***Sig. diff.*** t (7) = 2.52, p = 0.04 *d* = 0.89
PCL-5	13.8 SD = 10.8	16.8 SD = 17.7	*No sig. diff.* t (5) = 0.24, p = 0.82 *d* = -0.25	17.4 SD =10.5	8.9, SD = 5.0	***Sig. diff.*** t (7) = 2.44, p = 0.045 *d* = 0.86
ProQOL Burnout	-	-	-	23.5 SD = 4.5	20.6 SD = 3.5	*No sig. diff.* t (7) = 1.93, p = 0.10 *d* = 0.68
ProQOL Secondary Traumatic Stress or Vicarious Trauma	-	-	-	24.1 SD = 6.2	20.9 SD = 4.2	*No sig. diff.* t (7) = 1.52, p = 0.17 *d* = 0.54
ProQOL Compassions Satisfaction	-	-	-	38.1 SD = 4.5	42.4 SD = 4.7	***Sig. diff.*** t (7) = -2.84, p = 0.03 *d* = -1.00

Table 1. Mean scores (standard deviations) of Carers and Staff pre- and post-intervention measures. '*No sig. diff.*' / '***Sig. diff.***' indicates whether the differences between group means was significant at the p = 0.05 level. d = Cohen's d, an indication of the magnitude of the effect (0.2 = small, 0.5 = medium, 0.8 = large).



- Each bar represents a participant ('case number')
- The 'difference score' is the score on the measure after completing the yoga-intervention minus the score before completing the yoga-intervention
- Negative 'difference scores' indicate a reduction in stress related symptoms.

Figure 1. Difference scores on stress measures pre- and post-intervention. (Carer's scores were not significantly different pre- and post-intervention on either measure; staff scores were significantly different pre- and post-intervention on both measures).

Qualitative Data

The carers indicated whether or not they believed they had improved in terms of Flexibility, Balance, Sleeping and Stress. Results indicated that all 6 experienced improvements in flexibility; 3 out of 6 experienced improvements in balance (2 were unsure, 1 experienced no change); 5 out 6 experienced improvements in sleeping (1 did not); 5 of 6 reported improvements in stress (1 was unsure). All 6 carers indicated that they would like to continue yoga on a regular basis.

Comments indicated that *relaxation* was common benefit ("Enjoyed it so much, I love the feeling I have after yoga. Relaxed and focussed", The best thing about yoga was… "the relaxation and breathing exercises", "learning how to become relaxed quicker". *Enjoyment* was also reported ("Thank you so much… I have really enjoyed it", "This has been an amazing experience…"). *Self-care* and *pain management* were also reported as beneficial outcomes according to the carers. Participants were also asked if there was something that could be improved. They responded with requests to continue the program, to accommodate different timetables, and to provide a longer relaxation at the end.

Discussion

Foster Carers. The questionnaire data from carers indicated no significant change in symptoms of stress or wellbeing following the yoga intervention. However, the small sample size, and the fact that participants were only able to attend approximately half of the sessions, may have accounted for this. However, the low attendance rate appeared to be due to additional time pressures and difficulty getting to sessions, because positive feedback and a desire to continue yoga was unanimous. Overall, physical and psychological benefits were reported, although longer interventions may be necessary to observe measurable changes. It is worth noting that almost all carers reported improvements in sleep quality – a factor that is important for restoring daily function, and for ability to cope with emotional stress in everyday life (Vandekerckhove & Wang, 2017). Better mental and physical wellbeing for foster carers will not only benefit those individuals but will also have knock-on effects for the health and wellbeing of the young people in their care, as they are able to provide

Staff Members. Several promising results emerged from qualitative and quantitative results from the staff. There were significant in both levels of stress (K-10) and symptoms of PTSD (PCL-5). Effect sizes of group level differences were large for both measures. Inspection of data from individuals indicated that 5 out of 8 participants showed a reduction in symptoms of stress (2 no change, 1 showed marginal increase), and 7 out of 8 showed a reduction in symptoms of PTSD (1 showed a marginal increase).

The ProQOL also indicated marginal, but non-significant, reductions in self-reported burnout and symptoms of stress / trauma. However, a significant improvement in professional satisfaction was reported after the yoga intervention. This has implications for not only improving the experience of the staff in their employment, but also, for their ability to perform effectively and sustainably in their roles as compassionate, professional, members of staff.

Conclusions and future directions. The outcomes from this relatively short series of trauma informed yoga sessions were overwhelmingly positive, suggesting there is a need and to offer ongoing yoga sessions to support the physical and mental wellbeing of foster carers and staff members in high-pressured and emotionally demanding roles.

Contributors:

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Reference

Vandekerckhove M & Wang YL (2017). Emotion, emotion regulation and sleep: An intimate relationship. *Neuroscience*, 1;5(1):1-17