



A study on the efficacy of ProjectTHRIVE!among South African youths

BY SHAMIRI INSTITUTE

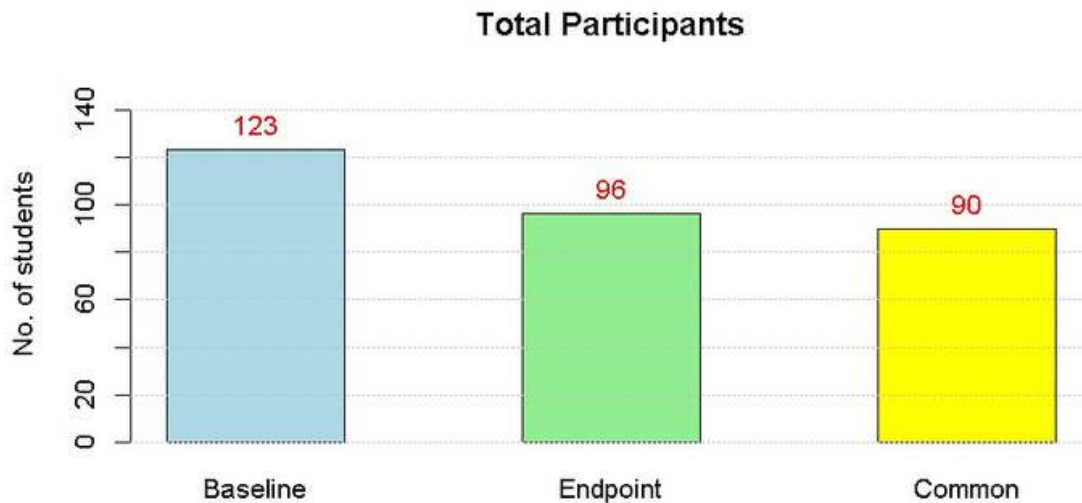
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Introduction

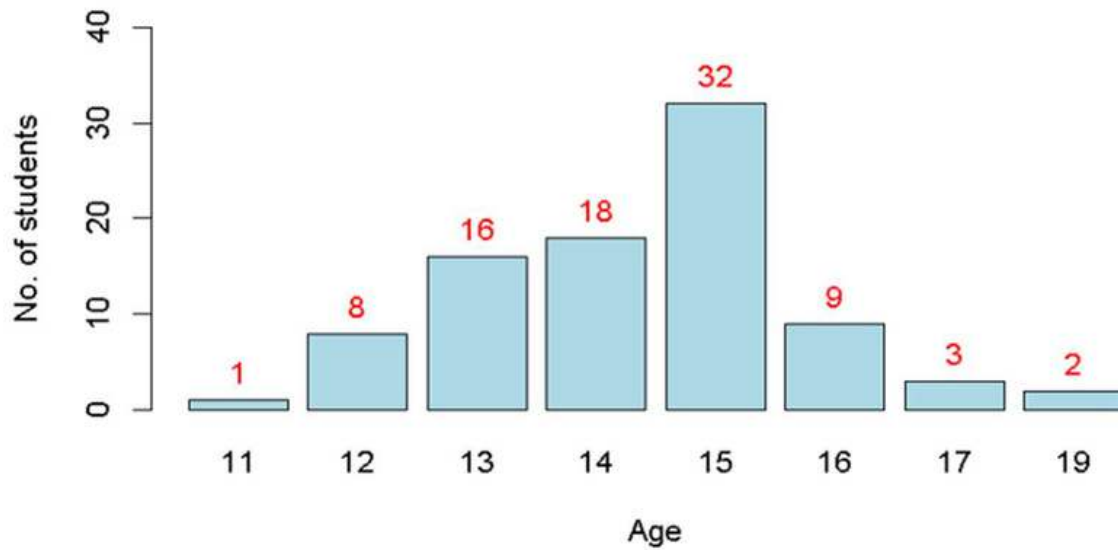
- Low and middle-income countries (LMICs) are home to over a billion adolescents, with a significant portion residing in Africa. Early intervention in the mental health of an adolescent's life is crucial because an individual's health and behaviours during childhood and adolescence set the foundation for their health in later years and influence the health of their offspring.
- There are several initiatives to increase access to mental health counselling in South Africa, primarily through the integration of counselling for common mental disorders (CMD) into primary health care services, but adolescents (15–18 years of age) generally do not utilize these services. Approximately 30% and 17% of adults in South Africa meet diagnostic criteria for a lifetime and past year mental disorder respectively, yet less than a quarter ever receive treatment.
- This gap in the mental health sector among South African youth brought together William James College (WJC), Peniel Learning, and Shamiri Institute to collaborate on a study that would investigate the efficacy of Anansi (Project THRIVE!), a cost-effective and evidence-based innovation that integrates large-scale dissemination of the Shamiri Intervention. The Shamiri Intervention is a simple and stigma-free character strengths intervention that is delivered in naturalistic settings (e.g., schools) by lay providers (aged 18-24).

Sample characteristics: Participants



- 123 participants filled out questionnaires at baseline, this number dropped by 21.95% (27 students) to 96 at endpoint (Note that all the 25 students from grade 11 that filled the baseline questionnaire did not fill out the endpoint questionnaire).
- Only 2 participants, not from grade 11, who filled out the baseline questionnaire did not fill out the endpoint questionnaire.
- 90 of the participants at endpoint had filled out the baseline questionnaire (6 participants from endpoint did not fill baseline questionnaire). Only the responses from these 90 participants were used in the analysis.

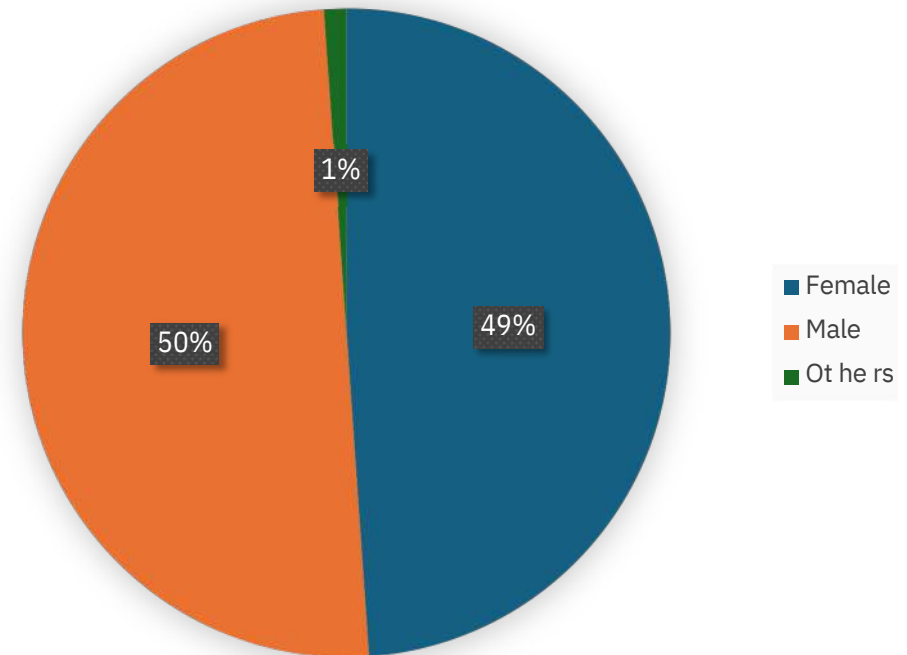
Sample characteristics: Age



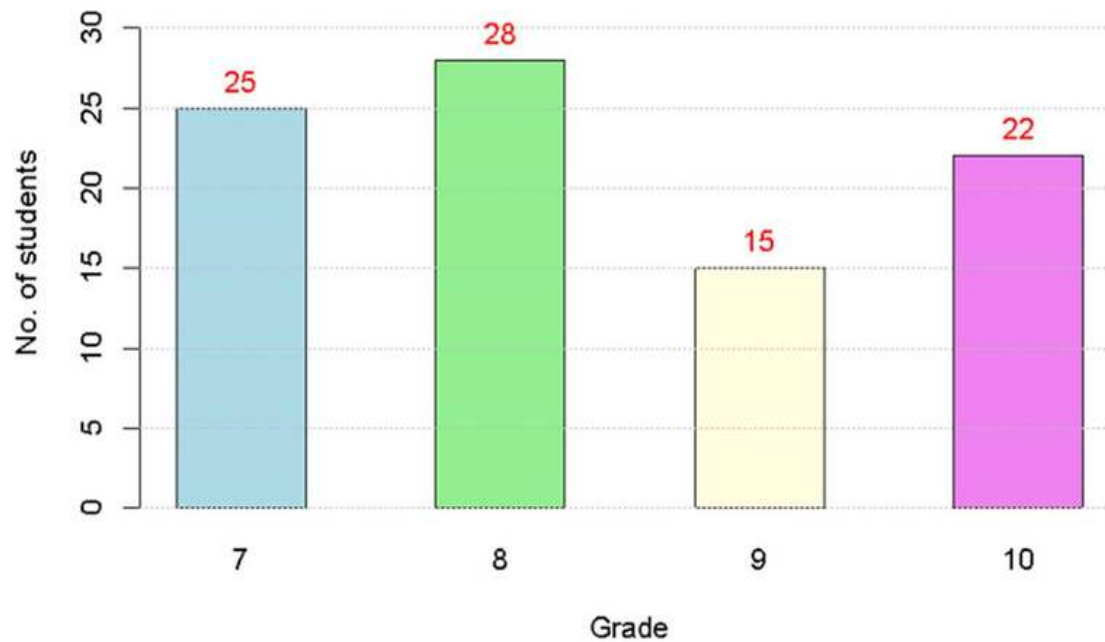
- Most participants were between the ages of 13 and 15.
- Largely, participants were 15 years (n=32), and very few were aged 11 (n=1) and 19 years (n=2).

Sample Characteristics: Gender

- There was a fairly equal distribution of gender in the sample, with female (n=45) participants making up 50% of the sample.
- Male participants made up 49% of the sample (n=44).
- One participant did not disclose their gender.



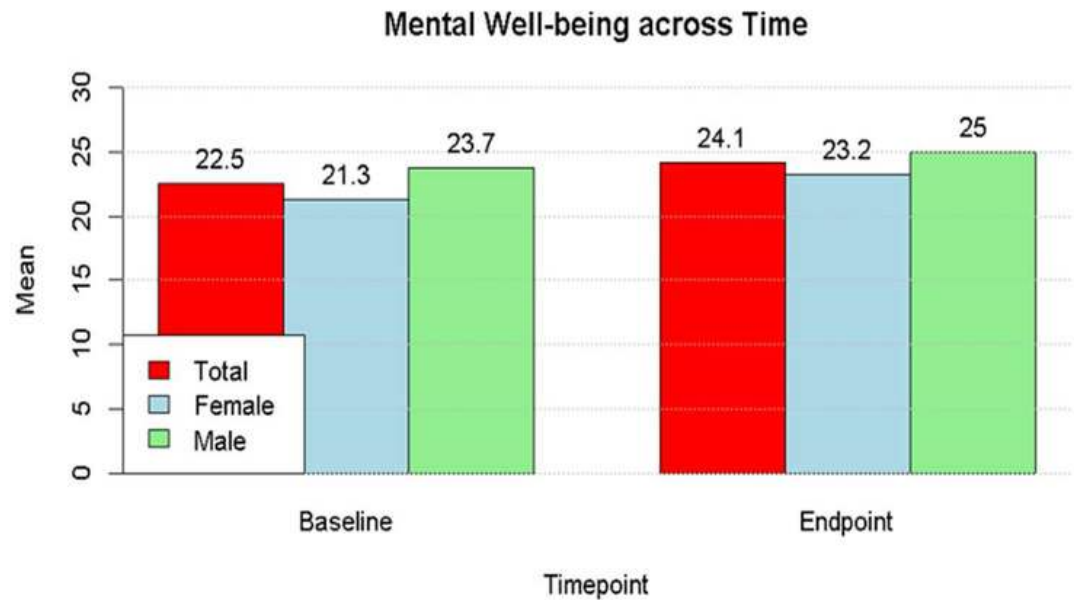
Sample characteristics: Grade



- Most participants were in grades seven through ten, with grade nine having the lowest number of participants (n=15).

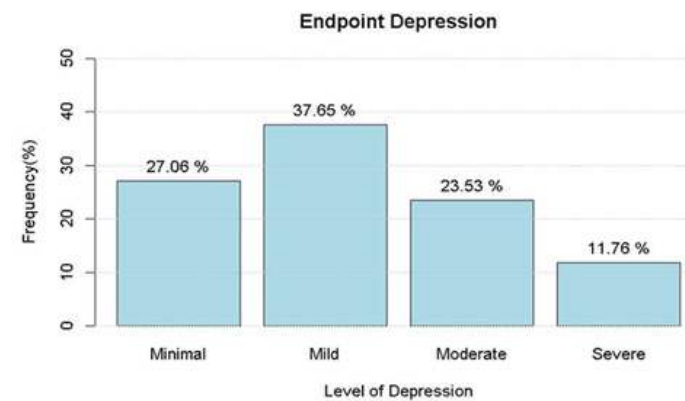
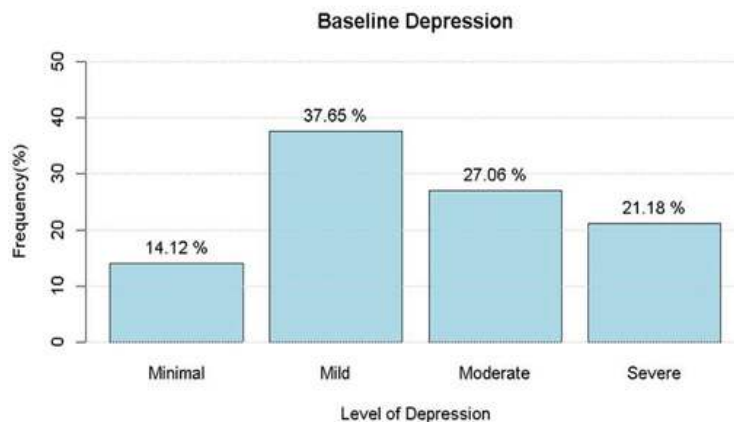
Student mental wellbeing

- The Short Warwick-Edinburgh Mental Well-Being Scale (SWEMWBS) was used to assess the general mental wellbeing of participants. The maximum score of SWEMWBS is 35. The Cronbach's alpha was 0.64, suggesting a slightly low reliability.
- Well-being scores **increased by 7%** from baseline to endpoint.
- The mean difference between baseline and endpoint was statistically significant at a 95% confidence interval ($p = 0.034$), with a Cohen's d value of 0.33; this suggests a small to medium effect in the difference in means.
- At both time points, male participants registered higher well-being scores than females, with both scores improving from baseline to endpoint.



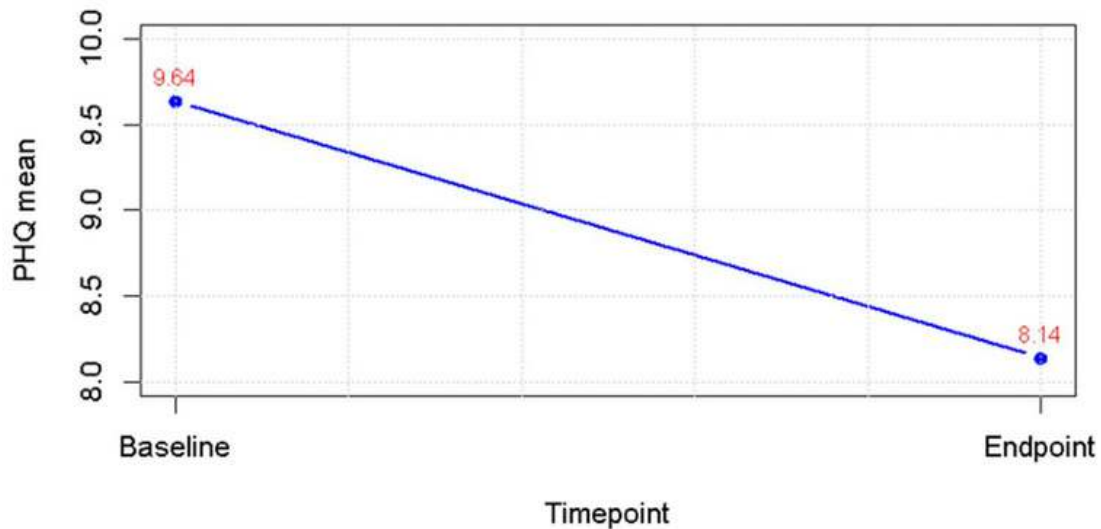
Prevalence of depression symptoms over time

- The eight-item Patient Health Questionnaire depression scale (PHQ-8) is established as a valid diagnostic and severity measure for depression. With a possible maximum score of 24, scores of 0-4 (no depression), 5-9 (mild depression), 10-14 (moderate depression), and 15-24 (severe depression) were used as cut-offs. The Cronbach's alpha was 0.65, suggesting a slightly low reliability.
- The prevalence rates of moderate and severe depression cases dropped by 3.5% and 9.42%, respectively, from baseline to endpoint.
- The prevalence rates of mild depression did not change over the two time points. **Minimal depression cases almost doubled from baseline to endpoint**, that is, from a prevalence rate of 14.12% at baseline to 27.06% at endpoint.



Changes in depression symptoms score over time

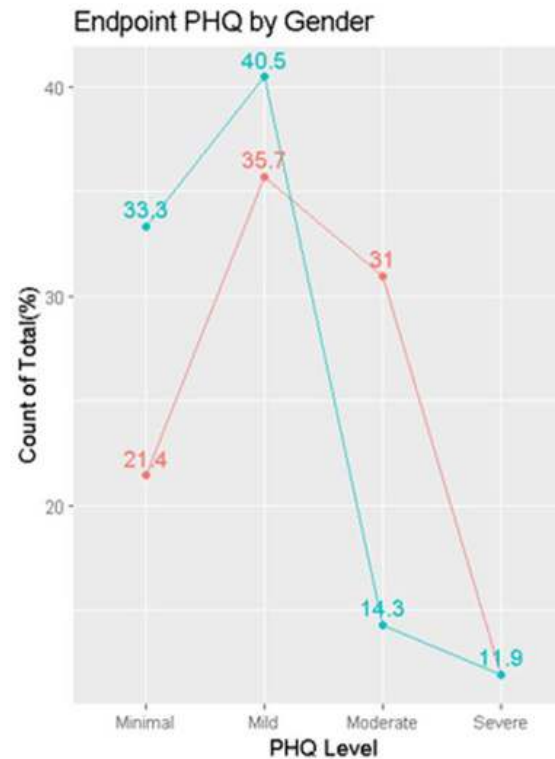
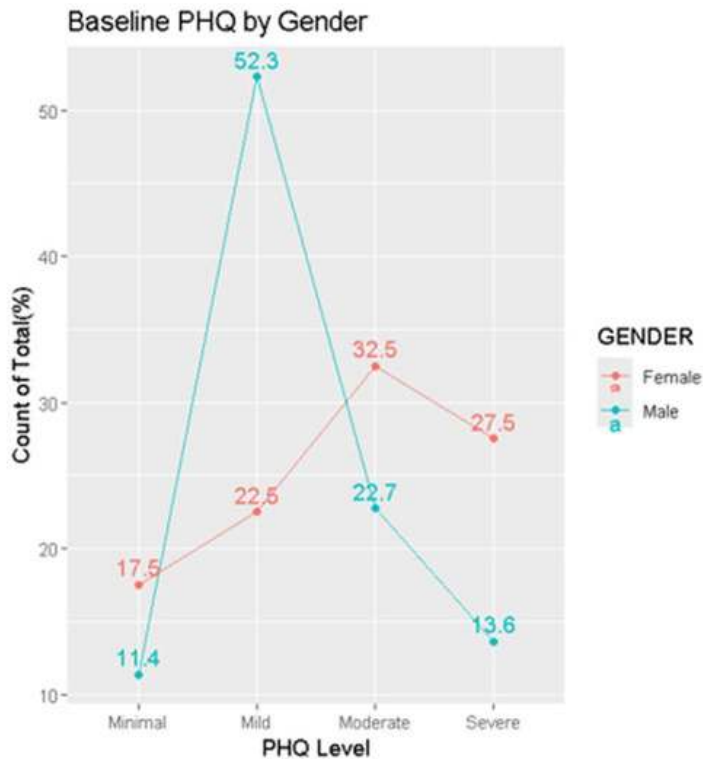
Average PHQ scores across the Time points



The average score for PHQ reduced from 9.64 at baseline to 8.14 at endpoint. This represented an overall 15.51% drop in the depression mean scores from baseline to endpoint.

The mean difference between baseline and endpoint was statistically significant at a 95% confidence interval ($p = 0.045$), with a Cohen's d value of 0.31; suggesting that there is a small to medium effect in the difference in depression means at baseline and endpoint

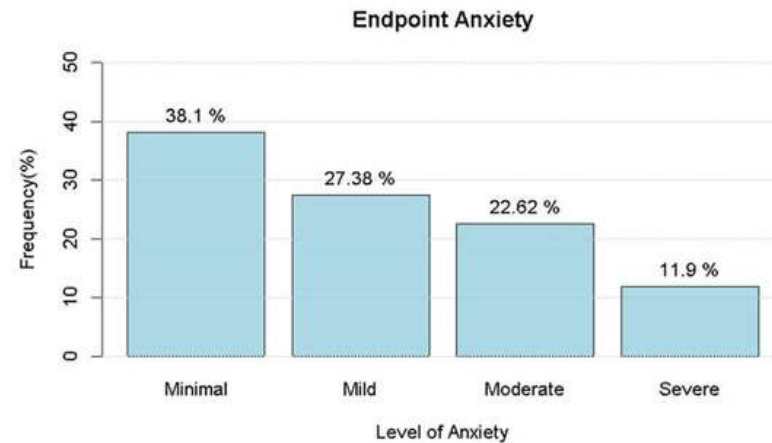
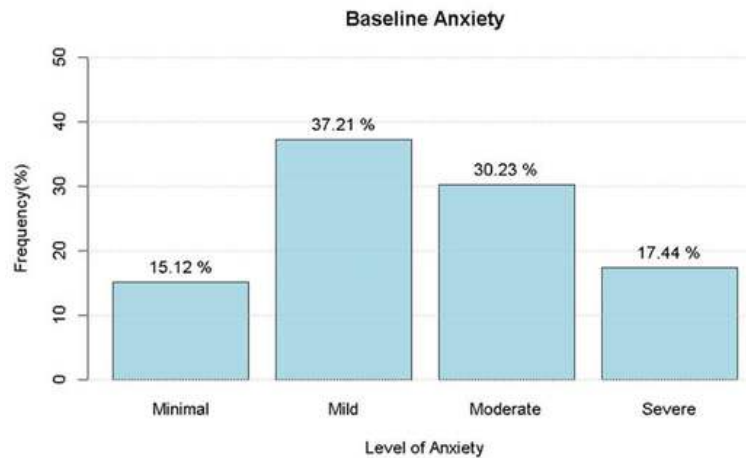
Depression symptoms by gender



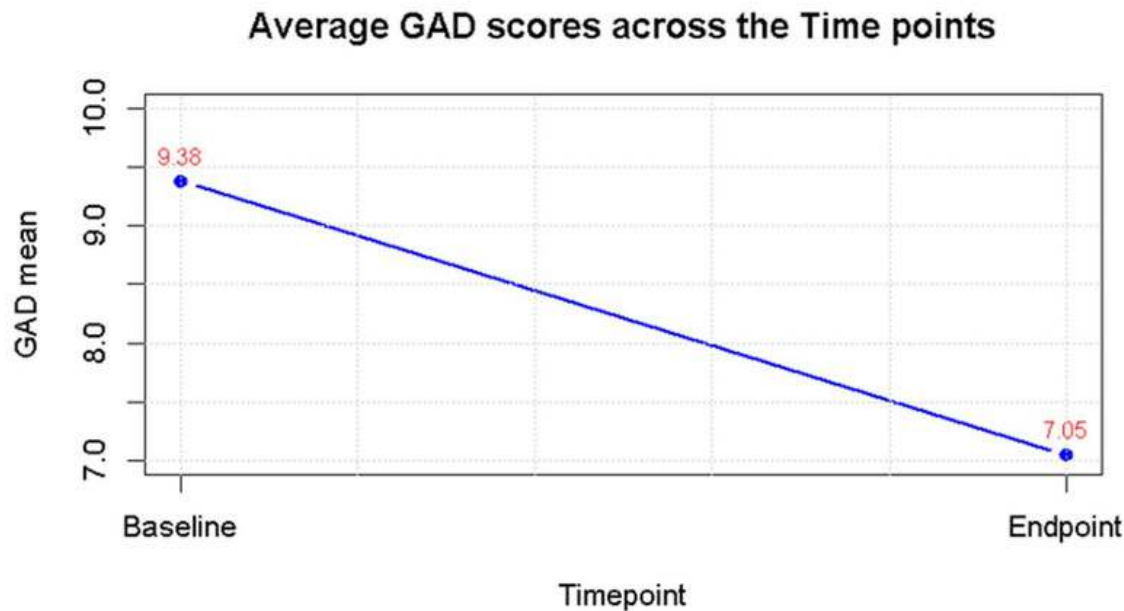
- A higher percentage of females were showing moderate and severe depression symptoms as compared to the males.
- The proportion of participants, of either gender, in the moderate and severe prevalence category dropped from baseline to endpoint.
- It's worth noting that there was a big drop in the number of females in the severe prevalence category from baseline to endpoint.

Prevalence of anxiety symptoms over time

- The GAD-7 scale (General Anxiety Disorder-7) measures the severity of anxiety, with a maximum score of 21. The scores obtained described the severity of anxiety symptoms. scores of 0-4 (no anxiety), 5-9 (mild anxiety), 10-14 (moderate anxiety), and 15-24 (severe anxiety) were used as cut-offs. The Cronbach's alpha was 0.79, suggesting good reliability.
- **Minimal anxiety prevalence rate more than doubled from baseline to endpoint**, with a prevalence rate of 38.1% at endpoint from 15.12% at baseline. Also, the prevalence rates of mild, moderate, and severe cases all saw declines of 9.83%, 7.61%, and 5.54%, respectively.



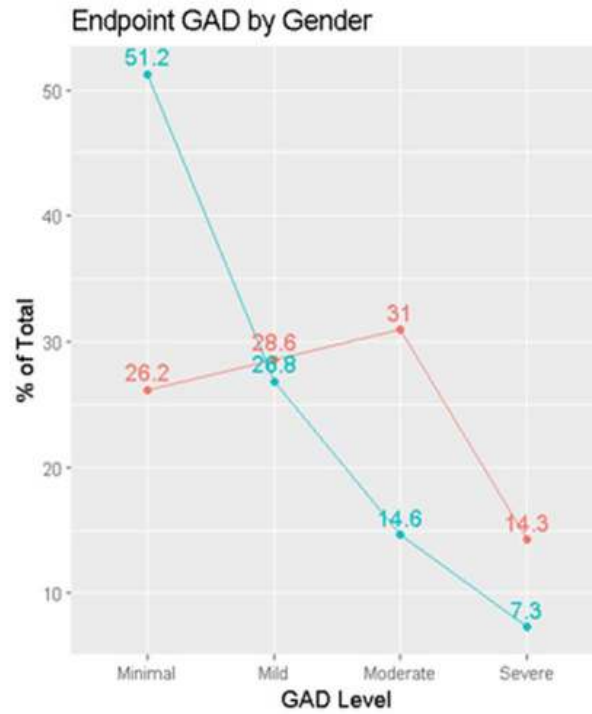
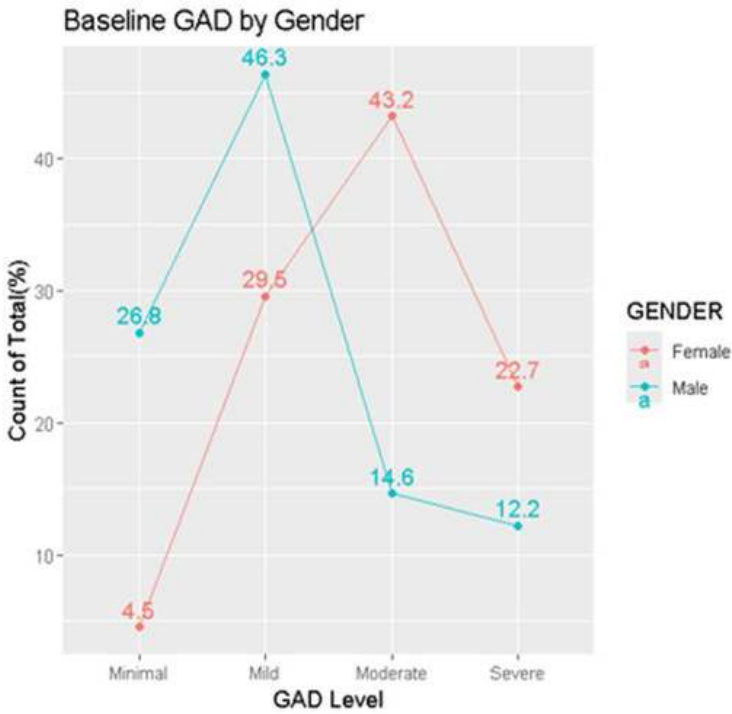
Changes in anxiety symptoms score over time



The average anxiety (GAD) scores reduced from 9.38 at baseline to 7.05 at endpoint. This represented a 24.9% reduction in the GAD mean scores from baseline to endpoint.

The mean difference between baseline and endpoint was statistically significant at a 95% confidence interval ($p = 0.003$), with a Cohen's d value of 0.46; suggesting that there is a medium effect in the difference in GAD means at baseline and endpoint.

GAD prevalence rates by gender



- A higher percentage of females were showing moderate and severe anxiety symptoms as compared to males.
- The proportion of participants, of either gender, in the moderate and severe prevalence rates dropped.

Conclusion

The Shamiri intervention provides evidence that it can lead to significant reductions in symptoms of depression and anxiety and improve the mental well-being of youths in South Africa. This was supported given the findings of this study, noting statistically significant improvements in mental outcomes of young South African students.

Given the rather small sample in this study, a larger study involving more participants from various socio-economic backgrounds in the country ought to be conducted to assess the effectiveness of the Shamiri intervention among a wider South African adolescent population.