

SECTION - IX

APPRAISAL

(STRENGTHS, LIMITATIONS & FUTURE DIRECTIONS)

9.1 Strengths and limitations of the study

- To our knowledge this is the first ever study measuring the effect of yoga on glycemic variability.
- First study on yoga in diabetes to use intention-to-treat analysis. Rigor in the methodology is strictly followed through this method of analysis and also through randomisation and allocation concealment. This has its own significance, as yoga studies carried out in India are often being scrutinised as low in quality and being biased, often reporting positive results 25 times more than the results of yoga studies carried out in any other part of the world (Cramer et al., 2015).
- Duration of the intervention is both strength, as well as a limitation for the study. Yoga intervention for T2DM were claimed to be effective only if it is carried out for duration of 3 months are more. The 3-month time window applied in the previous studies might be because of using HbA1C as one of the major outcome variable, which was previously believed as a more valid marker in the prognosis of T2DM. Evidence on the exact duration of yoga required to bring about a change in the glycemic status or correct underlying pathological abnormalities is inadequate. Similarly, the usage of HbA1C as a solitary measure of understanding glycemic status is widely debated. More recent studies have shown that better biomarkers of pathophysiological abnormalities of T2DM like AIR, proinsulin to insulin ratio, HOMA -B could be successfully reversed within 14 days which sustained for up to 12 months (Weng et al., 2008).
- Large scale study with follow up would help in acquiring more vital information regarding how long are the effects of yoga are sustainable.

9.2 Future directions:

- ▶ Large scale study with follow up would help in acquiring more vital information regarding how long the effects of yoga are sustainable.

9.3 Translational value

- ▶ Increased mean blood glucose levels are predictive of microvascular complications (Stratton et al., 2000), while increased glycemic variability is more predictive of macrovascular complications (Su et al., 2011; Karstoft et al., 2017).
- ▶ In our current study, a statistically significant reduction in both mean glucose levels and glycemic variability was observed with yoga.
- ▶ Yoga might thus possibly be beneficial in preventing both microvascular and macrovascular complications of T2DM.