

antioxidant potential of the phytoconstituents present in tea seed oil, which may suppress reactive oxygen species generation and promote the restoration of redox balance (Yan et al., 2020).

5 Conclusions

This study affirms the therapeutic potential of TSO in effectively reducing blood pressure, enhancing antioxidant defenses and improving lipid profiles. Although further investigation is warranted to elucidate the underlying mechanisms, the study provides valuable insights into the multifaceted benefits of TSO, positioning it as a natural and potentially effective agent in the management of hypertension and its associated complications.

List of abbreviations

Abbreviation	Full name
TSO	Tea Seed Oil
L-NAME	NG-nitro-L-arginine Methyl Ester
SBP	Systolic Blood Pressure
DBP	Diastolic Blood Pressure
MAP	Mean Arterial Pressure
ALT	Alanine Aminotransferase
AST	Aspartate Aminotransferase
ALP	Alkaline Phosphatase
HDL-C	High-Density Lipoprotein Cholesterol
LDL-C	Low-Density Lipoprotein Cholesterol
TC	Total Cholesterol
TGs	Triglycerides
GSH	Glutathione
GPx	Glutathione Peroxidase
SOD	Superoxide Dismutase
MDA	Malondialdehyde
NO	Nitric Oxide
NOS	Nitric Oxide Synthase
GGT	γ -glutamyltransferase
ACE	Angiotensin-Converting Enzyme
TP	Total Protein
ALB	Albumin
TB	Total Bilirubin
ANOVA	Analysis of Variance

Availability of data and materials

The datasets used and/or analyzed during the current study are available from the corresponding author on reasonable request.

Competing interests

The authors declare no conflict of interest.

Ethics approval and consent to participate

Authors declared that all experiments were carried out with strict compliance to the “Principle of Laboratory Animal Care” and ethical guidelines for investigation of experimental pain in conscious animals. The project was approved by the University of Ibadan Animal Care and Use Research Ethics Committee.

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Authors' Contributions

LEY: Conceptualization, supervision and final correction of draft. JFA and AAO: Methodology, data collection, writing-original draft preparation. LEY and JFA: Editing. All authors have read and approved the final manuscript.