

Figure 1 Schematic diagram for types of study designs

CONCLUSION

Identifying the most appropriate study design is critical for generating the best evidence to support or refute a hypothesis. A well-designed study will identify a range of variables including the subjects, the population, the intervention of interest, and the outcomes to be investigated. Understanding the various study designs is important not only in devising a new study but also for critically reviewing published studies

DECLARATIONS

Conflict of Interest

The authors declared no potential conflicts of interest with respect to the research, authorship, and/or publication of this article.

REFERENCES

- [1] Chidambaram, Ambika G., and Maureen Josephson. "Clinical research study designs: The essentials." *Pediatric investigation*, Vol. 3, No. 04, 2019, pp. 245-52.
- [2] Lim, Hyun Ja, and Raymond G. Hoffmann. "Study design: the basics." *Topics in Biostatistics*, 2007, pp. 1-17.
- [3] Majid, Umair. "Research fundamentals: Study design, population, and sample size." *Undergraduate research in natural and clinical science and technology journal*, Vol. 2, 2018, pp. 1-7.
- [4] Grimes, David A., and Kenneth F. Schulz. "An overview of clinical research: the lay of the land." *The lancet*, Vol. 359, No. 9300, 2002, pp. 57-61.
- [5] Kandi, Venkataramana. "Research process, study variables, statistical validations, and sampling methods in public health related research: an update." *American Journal of Biomedical Research*, Vol. 10, No. 1, 2022, pp. 1-8.
- [6] Rohrig, Bernd, Jean-Baptist D. Prel, and Maria Blettner. "Study design in medical research: part 2 of a series on the evaluation of scientific publications." *Deutsches Arzteblatt International*, Vol. 106, No. 11, 2009, 184-89.
- [7] Soto, Alonso, and Aleksandar Cvetkovic-Vega. "Case-control studies." *Revista de la Facultad de Medicina Humana*, Vol. 20, No. 1, 2020, pp. 138-43.
- [8] Sutton-Tyrrell, Kim. "Assessing bias in case-control studies. Proper selection of cases and controls." *Stroke*, Vol. 22, No. 7, 1991, pp. 938-42.
- [9] Fabregues, Sergi, and Michael D. Fetters. "Fundamentals of case study research in family medicine and community health." *Family Medicine and Community Health*, Vol. 7, No. 2, 2019.
- [10] Barlow, William E., et al. "Analysis of case-cohort designs." *Journal of clinical epidemiology*, Vol. 52, No. 12, 1999, pp. 1165-72.