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Letter to Editor

Radiology Section

Comparison between Prospective and Cross-sectional Survey

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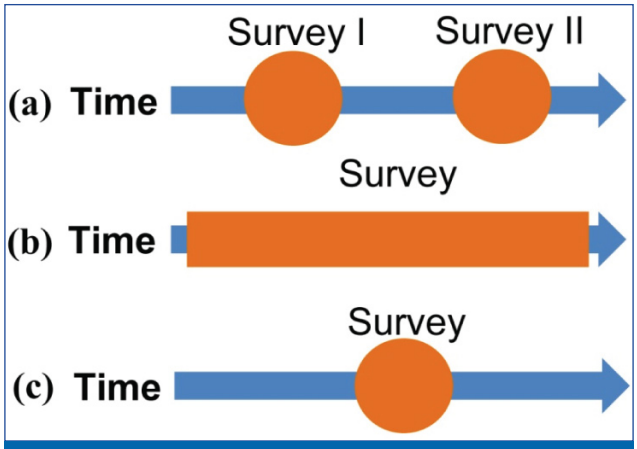
Dear Editor,

We read an article in your journal (Volume 6, 2017) contributed by Dasan TA, Koratagere RS and Rngaswamy NB. In the study, authors assessed the level of knowledge and awareness about radiation hazards among non-radiologist doctors [1]. It made us nostalgic about our internship days. During that period, sometime we had to take patients to Radiology Department. We had to keep the patient stable in X-ray table or hold the child during micturating cystourethrography. Despite knowing the hazards of radiation to some extent, we had to do that.

The result of the study expressed excellently and it influenced us to gather more knowledge about ionizing radiation hazards. According to author's description, the study was a prospective study. However, we tried to fit the study in "prospective study" category from different angle but could not do it properly. Hence, we wanted to share our views with journal readers.

The study was conducted from December 2015 to February 2016. Obviously, the study started in one point of time and was carried out during a span of time forward. However, "prospective study" is those studies where investigators take a sample, measure baseline characteristics, predict outcome and follow sample with measurements of the outcome [2]. It is clear that authors did not carry out such type of study.



[Table/Fig-1]: a), b): Schematic presentation of prospective survey; c): cross-sectional survey.

If they even used the term "prospective survey", that also might not be appropriate for their study design. Commonly, the term "prospective survey" used to describe two type of survey.

First, as shown in [Table/Fig-1a], investigators collects data at one point of time and survey the same sample in another point of time [3]. An example in this context: First survey was conducted to assess baseline knowledge and awareness regarding radiation hazard and then the sample pass through academic course about radiation hazard, then second survey was conducted.

In second situation [Table/Fig-1b], researchers took data from a sample of consecutive subjects during particular span of time [4]. An example in this context: Data collected on knowledge and awareness about ionizing radiation among first year non-radiology postgraduate students for consecutive five years.

In addition, we described a third situation [Table/Fig-1c]. In this case, authors took a sample and conducted a survey. This is commonly designated as "cross-sectional" survey [5]. According to our understanding, this is most appropriate for the study conducted by Dasan TA, Koratagere RS and Rngaswamy NB. Working doctors in a particular hospital is fixed. Marley carrying out survey during a time span is not prospective survey of prospective study. Because, this survey could be done in one day, if man power was sufficient. In contrast, we cannot carry out survey in a single day in previously described two situations. Hence, it could be appropriate to designate the survey as "cross-sectional".

Hope this brief discussion would help new researchers to understand difference between prospective and cross-sectional survey.

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