

Ans no :1

### **Fundamental research ethics principles:**

Research ethics provides guidelines for the responsible conduct of research. In addition, it educates and monitor scientist conducting research to insure a high ethical standard

Following are the basic research ethics principles:

1. Respect for the persons autonomy and protecting those with diminished autonomy.
2. Be generous and helpful and do not have the nature of being harmful.
3. Do justify your research and do it up to the best level.
4. Have all the necessary information regarding research.
5. Protect confidential communications such as papers or grants submitted for publications, personal records, trade or military secrets and patient records.
6. Minimize the risk of harm to participants.
7. Avoid using deceptive practices
8. Give participants the rights
9. Honestly report data, results, methods and procedures, and publications status. do not fabricate, falsify, or misrepresent data.
10. Promise keeping and trust worthiness
11. Fairness of research is very much significant
12. Maintain rules and laws of research
13. Obtain informed consent from potential research participants.
14. Keep your promises and agreement. Act with sincerity. strive for consistency if thoughts and actions
15. Avoid careless errors and negligence carefully and critically examine your own work and the work of your peers. Keep good records of research activities

16. Respect for intellectual properties, honor patents, copyrights and other form of intellectual properties and do not use unpublished data , methods , or results without permissions give credit where credit is due, never plagiarize.
17. Maintain and improve your own professional competence and expertise through life long educations and learning, take steps to promote competence in science as a whole

**Ans no: 02**

**Why is research ethics important in qualitative research?**

As per the guidance of international research ethics which is reflective of mistakes in the field of research. This leads some qualitative researcher to conclude and they are learning from these guidance to more beautify there research and they can bitterly benefit the public through research from expelling out these mistakes. Conversely, some of the researchers who use qualitative approaches without having the benefit of formal training in the social sciences may attempt to rigidly enforce ethics practices without considering whether they are appropriate for qualitative research.

Between these two extremes lies a balanced approach founded on established principles for ethical research that are appropriately interpreted for and applied to the qualitative research context. Agreed-upon standards for research ethics help ensure that as researchers we explicitly consider the needs and concerns of the people we study, that appropriate oversight for the conduct of research takes place, and that a basis for trust is established between researchers and study participants.

Whenever we conduct research on people, the well-being of research participants must be our top priority. The research question is always of secondary importance. This means that if a choice must be made between doing harm to a participant and doing harm to the research, it is the research that is sacrificed. Fortunately, choices of that magnitude rarely need to be made in qualitative research! But the principle must not be dismissed as irrelevant, or we can find ourselves making decisions that eventually bring us to the point where our work threatens to disrupt the lives of the people we are researching

**Ans no: 03**

**What can we learn from qualitative research?**

Qualitative research is basically a primitive or complex way of identifying what compounds are present in a certain container or what compounds are formed or exhausted during a certain chemical reactions by the help of the color, smell, solubility, energy difference or by testing it by other reagents. But in many cases it failed to identify particular gas or compounds since sometimes many compound gave same color, etc. Now we use different types of spectroscopy simply to identify compounds

The qualitative research has the ability to describe the issues of research more efficiently. It gives you all the basic information about the given issues – that is, the usual change in behaviors, beliefs, opinions, emotions, and relationships of individuals. Qualitative research is also effective in identifying a unique factors, such as social norms, socioeconomic status, gender roles, ethnicity, and religion, whose role in the research.

Qualitative research can help us to interpret and better understand the complex reality of a given situation and the implications of quantitative data. Issue may not be readily apparent. When used along with quantitative methods,

Although findings from qualitative data can often be extended to people with characteristics similar to those in the study population, gaining a rich and complex understanding of a specific social context or phenomenon typically takes precedence over eliciting data that can be generalized to other geographical areas or populations. In this sense, qualitative research differs slightly from scientific research in general.

**Ans no: 04**

Qualitative research generates textual data while quantitative research on the contrary produces numerical data or information that can be converted into numbers.

Qualitative research methods focus groups in depth interview and reviews of documents for type of themes. while quantitative research surveys structured interview and observation and review of records of documents for numeric information.

Qualitative research unstructured or semi structured response option while quantitative research methods are fixed response option.

Qualitative research is considered to be particularly suitable for exploratory research.

There are a lot of differences between qualitative and quantitative research.

The main difference between quantitative and qualitative methods is their flexibility. Generally, quantitative methods are fairly inflexible. With quantitative methods such as surveys and questionnaires, for example, researchers ask all participants identical questions in the same order. The response categories from which participants may choose are “closed-ended” or fixed. The advantage of this inflexibility is that it allows for meaningful comparison of responses across participants and study sites. However, it requires a thorough understanding of the important questions to ask, the best way to ask them, and the range of possible responses. Qualitative methods are typically more flexible – that is, they allow greater spontaneity and adaptation of the interaction between the researcher and the study participant. For example, qualitative methods ask mostly “open-ended” questions that are not necessarily worded in exactly the same way with each participant. With open-ended questions, participants are free to respond in their own words, and these responses tend to be more complex than simply “yes” or “no.”

In addition, with qualitative methods, the relationship between the researcher and the participant is often less formal than in quantitative research. Participants have the opportunity to respond more elaborately and in greater detail than is typically the case with quantitative methods. In turn, researchers have the opportunity to respond immediately to what participants say by tailoring subsequent questions to information the participant has provided.

It is important to note, however, that there is a range of flexibility among methods used in both quantitative and qualitative research and that flexibility is not an

indication of how scientifically rigorous a method is. Rather, the degree of flexibility reflects the kind of understanding of the problem that is being pursued using the method.