Methods

This study used a qualitative study method with semi-structured interviews for investigating the challenges of a fever detection plan in Yazd province, Iran. In addition, a checklist for the reporting qualitative research (SRQR) that was introduced by The O’Brien et al. (2014) was used for this study13.

**Sampling strategy**

The inclusion criteria for participating in this study was to be actively participating in the fever screening plan as an aid worker or as a manager. According to Strauss and Corbin's instructions, sampling was conducted14. The deputies were selected according to their role in the plan. Selection of aid workers was conducted using the snowball sampling technique.

The sample size was determined by theoretical saturation. The continuation of sampling and data collection until no new conceptual insights are generated. Sampling continued until theoretical saturation, and further data collection and analysis failed to contribute with new information. Data saturation supported the sample size. Characteristics of participants at the study is shown in table 1.

Table 1: Characteristics of participants at the study

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Code | Role | level | Gender | Age |
| V1 | Volunteer | Screening stations | Male | 27 |
| V2 | Volunteer | Screening stations | Male | 22 |
| V3 | Volunteer | Screening stations | Male | 25 |
| V4 | Volunteer | Screening stations | Male | 17 |
| V5 | Volunteer | Screening stations | Male | 36 |
| V6 | Volunteer | Screening stations | Male | 28 |
| V7 | Volunteer | Screening stations | Male | 34 |
| V8 | Volunteer | Screening stations | Male | 21 |
| V9 | Volunteer | Screening stations | Male | 26 |
| M1 | Headquarter Deputy Director | IRCS Manager at provincial level | Male | 42 |
| M2 | Headquarter Deputy Director | IRCS Manager at provincial level | Male | 39 |
| M3 | Headquarter Deputy Director | IRCS Manager at provincial level | Male | 51 |
| M4 | Headquarter Deputy Director | IRCS Manager at provincial level | Male | 48 |
| M5 | Headquarter Deputy Director | IRCS Manager at provincial level | Male | 43 |
| BM1 | Branch manager | IRCS Manager at county level | Male | 42 |
| BM2 | Branch manager | IRCS Manager at county level | Male | 45 |
| BM3 | Branch manager | IRCS Manager at county level | Male | 49 |
| BM4 | Branch manager | IRCS Manager at county level | Male | 48 |
| BM5 | Branch manager | IRCS Manager at county level | Male | 48 |
| BM6 | Branch manager | IRCS Manager at county level | Male | 46 |

**Ethical Issues pertaining to human subjects**

Respondents were assured that their information would be kept confidential and that their name or title would just be mentioned in the study if previous authorization was provided. They were also given a full explanation of the project's aims.

**Data collection methods**

Data collection included semi-structured interviews. Data were collected in April 2020 after completion of the fever screening plan. The senior author that has experience in humanitarian programs for more than ten years, contacted eligible persons to inquire about their willingness to participate in this study. The interviewees were invited to tell their experiences on three main themes including the plan itself, their challenges for implementing it, and their solutions for improving the challenges. Interviews time ranged between 20-60 minutes. The interviews were performed in Persian, and then translated into English for publication by a bilingual translator. To preserve words and definitions, a bilingual interpreter was asked to check the accuracy of the text.

**Data collection instruments and strategies**

Two interview protocols were used for interviewing managers and aid workers. The protocols are included in the annex. Interviews were conducted via phone calls and recorded having previous authorization from the interviewees. After the interviews, some cases needed to be investigated further. Therefore, some questions were asked via WhatsApp and interviewees send their response via voice message throughout this mobile application.

**Units of study**

A total of twenty-four aid workers and managers participated in the study. The sample was comprised by seven branch managers, eight managers from provincial headquarters, and nine volunteer aid workers. The age of participants ranged from 17 to 51 years old.

**Data processing**

All interviews were recorded and transcribed verbatim, always with previous authorization from the interviewees. Interviews were anonymized and each interviewee was given a code number. The interviewer and another member of the research team (I.S.) reviewed the transcripts for accuracy.

**Data analysis**

Accordingly, in order to define the concepts that were going to influence the next interview, every interview was initially analyzed. The principal investigator read all the interviews carefully many times during the open coding process, then listed incidents, information, keywords, or phrases in the document as MAXQDA codes. The researcher divided conceptually similar codes into categories as the study proceeded, and expanded the characteristics and dimensions for each category. The codes and data were compared in order to look for similarities and differences. According to those results, categories and sub-categories were developed. The subcategories and important codes of challenges of the plan are in Table 1. The relationships with all previous codes and categories were discussed during the coding process, and the associations between all the data were further considered and synthetized in order to obtain a narrative that described the main concepts. A core variable was defined after coding at the end of the selective coding process, which was found in all results.

**Techniques to enhance trustworthiness**

Interviewees verify their transcripts for validity improvement. For trustworthiness three steps were conducted: member check, peer check, and expert check. In addition, data validation was done by continuous comparative analysis, which involves going back to the data to further validate and improve the categories. Such strategies strengthened the study's rigor by reducing the validity risks.

**Semi-structure interview protocol for interviewing with volunteers and staff in COVID-19 screening**

**Interview Introduction**

**Part 1: Interviewee's information**

* Name and age,
* Role of the interviewee in the screening,
* Experience in humanitarian action,
* Place of work (the county and the screen post name),

**Part 2: Screening plan**

* Do you think the screening plan was useful for people?
* What was the strength(s) of the plan?
* What was weakness (es) of the plan?

**Part 3: interviewee experience**

* What were your concerns as an aid worker in the plan?
* Please describe your feeling in the plan? For example, did you feel fear, stress, insecurity and the like?
* Did your colleagues in the plan (volunteer or staff) experience any problem in the plan including physical, mental, or social? Did they talk to you? Please describe it.
* What do you think about the managerial support in the plan?

**Part 4: People reactions**

* What was the people those you were screening reaction?
* If their reaction was negative, please describe it.
* If their reaction was positive, please describe it.

**Interview round up**

Explain the result of this study will be shared with the interviewee in the form of a paper. Ask the interviewee to introduce someone else if know for improving the research. Ask if it is ok, in terms of further questions will get back to you.

**Semi-structure interview protocol for interviewing with the managers in COVID-19 screening**

**Interview Introduction**

**Part 1: Interviewee's information**

* Name and age,
* Role of the interviewee in the screening and in Red Crescent,
* Experience in humanitarian action,
* Place of work (the county and the screen job position),

**Part 2: Screening plan**

* Do you think the screening plan was useful for people?
* What was the strength(s) of the plan?
* What was weakness (es) of the plan?

**Part 3: interviewee experience**

* What were your concerns as a manager in the plan?
* Please describe your feeling in the plan? For example, did you feel fear, stress, insecurity and the like?
* Did your colleagues in the plan (volunteer or staff) experience any problem in the plan including physical, mental, or social? Did they talk to you? Please describe it.
* What do you think about the managerial support in the plan?

**Part 4: People reactions**

* What was the reaction of people those your volunteers or staff screened?
* If their reaction was negative, please describe it.
* If their reaction was positive, please describe it.

**Interview round up**

Explain the result of this study will be shared with the interviewee in the form of a paper. Ask the interviewee to introduce someone else if know for improving the research. Ask if it is ok, in terms of further questions will get back to you.