THESIS EVALUATION RESPOSNE

A STUDY ON RISK FACTORS OF MALNUTRITION AND EFFECTIVENESS OF FAMILY BASED INTERVENTION PROGRAM (FBIP) ON NUTRITIONAL STATUS OF CHILDREN AND KNOWLEDGE AND PRACTICES OF MOTHERS IN SELECTED VILLAGES OF NAINITAL DISTRICT, UTTARAKHAND

Thesis Submitted In Partial Fulfillment of the Award

of Degree of Doctor of Philosophy

In Nursing Sciences

SUBMITTED BY

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Undertaking from Ph.D. Scholar for Recommendations of the External Evaluators

This is to certify that all the recommendations received from the External Evaluators for the evaluation of my thesis entitled **"A study on risk factors of Malnutrition and effectiveness of Family Based Intervention Program (FBIP) on Nutritional status of children and Knowledge and practices of mothers in selected villages of nainital district, Uttarakhand"** submitted by me in the specialization of Nursing Sciences are fully incorporated in the revised thesis.

Signature of Ph.D. scholar: 

Name of Ph.D. scholar: Pratiti Haldar

Registration No. of Ph.D. scholar: DD20185010009

Date: 12.09.2022

Undertaking from Supervisors for Recommendations of the External Evaluators

This is to certify that all the recommendations received from the External Evaluators for the evaluation of the thesis entitled **"A study on risk factors of Malnutrition and effectiveness of Family Based Intervention Program (FBIP) on Nutritional status of children and Knowledge and practices of mothers in selected villages of nainital district, Uttarakhand"** submitted by the Ph.D. Scholar Ms.Pratiti Haldar, Reg. No. DD20185010009 in the specialization of Nursing Sciences are fully incorporated in the revised thesis, and are to our satisfaction.

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Narrative Response to the Evaluation report by Examiner 1

The researcher would like to express her immense gratitude to the examiner for sparing out time and giving such suggestions. These suggestions have not only helped the researcher in brain storming for the answers but have showered guidance for further studies also. The responses for all the queries have been answered to the best of the ability and are mentioned below:

Introduction:

Query 1. The objectives of the study can be stated as primary and secondary rather than phase I and Phase II.

Response: The study has been conducted in two phases. The objectives were stated for phase I and Phase II separately to achieve better clarity.

Query 2. The hypothesis needs to be more specific for e.g., H1 whose nutritional status, H2 & H3 can also be more specific.

Response: The variables: nutritional status, nutritional knowledge and nutrition related practices have been specified in the operational definitions.

Query 3. The implicit assumptions (e.g., 1,2,9 etc.) can be avoided and be made more specific. For e.g., sl. no 4 specify the selected demographic variables.

Response: To get better understaning in the area of study, assumptions 1,2,9 etc. were added. Sl.No.4 has been specified for selected demographic varibales and can be read as:

4. Selected demographic variables i.e., (Gender, Mother's Educational status, Family Type, No. of children and Place of delivery) have influence on mothers' knowledge and practice regarding prevention and management of malnutrition.

Query 4. Conceptual framework: Page 17, as mentioned the FGD details can be incorporated in the methodology.

Response: The FGD was not part of objectives. It was conducted as part of study and the details are given as additional findings.

Query 5. Justify, why the nutritional related practices are categorized as moderately appropriate.

Response: Based on the scores obtained, nutrition related practices of mothers were categorized into adequate, moderately adequate and inadequate. Since the scores obtained were widely varied from highest to lowest, so three categories for nutrition related practices were made.

Review of Literature:

Query 1. Study population is delimited to 3 years the review question Sl.No. 1 indicates children below- 5 years.

Response: As there was limited literature available on nutritional status of chidren in the age of 1-3 years, so literature reviews of children below five years was done.

Materials and Methods:

Query 1. The schematic representation of the research design can be more specific as O1, O2 and followed by O1 for experimental group. Similarly, to be differentiated for control group O1, O2, O3 for repeated observations.

Response: Rectified - typological error. It can be now read as:

Groups	Pre-Test	Treatment	Post-Test 1 (1st Month)	Post-Test 2 (3rd Month)	Post-Test 3 (6th Month)	Post-Test 4 (9th Month)
R_E	O_1	X	O_2	O_3	O_4	O_5
R_C	O_1	--	O_2	O_3	O_4	O_5
Variables	• Nutrition Knowledge • Nutrition related Practices	Two weeks	• Nutrition Knowledge • Nutrition related Practices	• Nutrition Knowledge • Nutrition related Practices • Nutritional Status	• Nutritional Status	• Nutritional Status

Query 2. Justify why Haldwani block was selected and what was the prevalence of malnutrition among children in that block.

Response: As Haldwani block was the most populated area and more accessible, it was chosen to explore the nutritional status of children aged 1-3 years residing in rural areas. The prevalence of Malnutrition in Uttarakhand as per NFHS-5 (2020-21) data was: Underweight (21%), Stunted (27%) and Wasted (13.2%) and as per NFHS 4 (2015-16) data i.e., when the study was initiated the prevalence of Underweight, Stunting and Wasting in Nainital District was 17%, 32% and 9%. As such, no separate studies or data was found for malnutrition in children below three years in Haldwani block, Uttarakhand.

Query 3. For phase I estimated sample size was 622, and recruited was 703. Justify the reason.

Response: The study used a multi stage sampling technique. All the children in the selected sub centre were screened and included for the study. There were a total of 703 children. The possibility of attrition was also considered for selecting higher sample size.

Query 4. Page 48. check the content, last 5 lines of the para for clarity.

Response: The minimum sample size calculated for each group was 67. Expecting the attrition rate of 10%, 73 was required in each group. But all children who were identified as malnourished were included in the study.

Query 5. Phase II of the study was delimited to children with mild and moderate malnutrition. The prevalence of malnutrition was 21% i.e., 151 children. Justify, the sample size included for phase II. Further what was the method followed for random allocation of the children to experimental and control groups.

Response: For randomization, sub centres were allocated to the Intervention and Control group (Lottery Method). So, two sub centres in each group. The total number of children in the intervention group was 75 and control group was 74.

Query 6. Clarify, the score categorized for moderately adequate practice (66-80) in page 58.

Response: Nutritional related practices were arbitrarily categorized into three categories i.e., adequate, moderately adequate and not adequate. The participants scoring below half of total score were considered having not adequate practices, those scoring in the range of (65-103) were categorized into moderately adequate practices and those scoring 104 above were considered to have adequate practices.

Query 7. Table 4, Reliability coefficient needs clarification if these four types of reliability calculation applicable for both the tools.

Response: To gain better reliability of the tools, all possible methods were used.

Query 8. Figure 4, indicate phase I and phase II

Response: Sugesstion for Phase I and Phase II, incorporated.

Results:

Query 1. How the prevalence of malnutrition is determined (Formula) and how it is categorized into mild, moderate and severe.

Response: For estimation of prevalence of malnutrition, WHO criteria was used and it was categorized using WHO Anthro software. The details of weight, height, date of birth and Mid Upper Arm Circumference was entered and categories for malnutrition (weight for age, weight for height and height for age) was obtained.

Query 2. Table 10, needs clarity for title and column of nutritional status.

Response: Abbreviations and columns has been made clear.

Query 3. How the practices were observed and are identified as moderately adequate? What is the basis for categorizing the practices? Describe the good practices and the bad practices?

Response: The practices were assessed through structured practice questionnaire on nutrition which was self-reported. As the data regarding nutrition related practices of mothers was score based so the participants obtaining scores more than half were considered as good practices (moderately adequate and adequate practices) and below half as bad practices (inadequate practices). Specific pratices of mothers regarding nutrition were also assessed through semi-structured interview and are described in risk factors related to malnutrition.

Query 4. How did the investigator control the intervening variables in Phase II and factors affecting internal validity?

Response: In order to control the intervening variables and factors affecting internal validity randomization process was used to remove selection bias which indirectly controls the intervening variables in phase II. Further, the significance was checked at baseline between the two groups and was found that all the intervening variables were statistically non-significant. Hence, their contribution and affect are negligible on primary outcome variable. Also, adjusted regression analysis was not done

because all the intervening variables were statistically non-significant at baseline between two groups.

Query 5. Were the practices observed in their home setting? The practice questionnaire can be made more relevant.

Response: The practices were self-reported practices and the questionnaire was Likert scale.

Query 6. The knowledge questionnaire needs to be simplified to avoid medical terminology.

Response: The suggestion is well taken. Simpler terminology will be easy to understand. It was made simpler during translation.

Discussion:

Query 1. Page 130, clarify exclusive breastfeeding is it a risk factor for malnutrition (1st and 3rd para) as it is indicated early introduction of complementary feed is significant factor for malnutrition

Response: The question on exclusive breast feeding had two options: Yes and No. The odds were computed for 'No'. So, this can be interpreted as the ones who did not breast feed were having their children to be at higher risk of malnutrition.

Conclusion:

Query 1. The clarity can be given when was the knowledge or practice sustained or maximum level reached.

Response: Knowledge and pratices were assessed at 1st and 3rd month. The knowledge and nutrition related practices of mothers was maximum at 3rd month as compared to 1st month.

Query 2. Conclusions can be based on findings rather than repetition of findings.

Response: As conclusion is a separate chapter, it started with major findings of the study which was furthered by implications of the study.

Narrative Response to the Evaluation report by Examiner 2

The researcher would like to express her immense gratitude to the examiner for sparing out time and giving such suggestions. These suggestions have not only helped the researcher in brain storming for the answers but have showered guidance for further studies also. The responses for all the queries have been answered to the best of the ability and are mentioned below:

Materials and Methods:

Query 1. In the schematic representation of research design for phase II 9 (pg. 45), all observations given as O1

Response: Have rectified it. It was a typological error

Groups	Pre-Test	Treatment	Post-Test 1 (1st Month)	Post-Test 2 (3rd Month)	Post-Test 3 (6th Month)	Post-Test 4 (9th Month)
R_E	O_1	X	O_2	O_3	O_4	O_5
R_C	O_1	--	O_2	O_3	O_4	O_5
Variables	• Nutrition Knowledge • Nutrition related Practices	Two weeks	• Nutrition Knowledge • Nutrition related Practices	• Nutrition Knowledge • Nutrition related Practices • Nutritional Status	• Nutritional Status	• Nutritional Status

Query 2. It was not specified as to what was the basis for deciding which mothers were mentally challenged, and what was the nature of help sought from the ANMs and AWWs. Were the ANMs and AWWs trained for this task.

Response: Mentally challenged mothers were those mothers who were diagnosed as mentally challenged and was to be confirmed only after seeing hospital record. However, the researcher didn't come across any mother who was mentally

challegened. AWWs and ANMs help was taken only to know regarding the number of children registered in the Aganwadi and area in the village where they were residing.

Results:

Query 1. Not clear why N is different in Table 5, Fig. 6,7.

Response: The N is different in Table 5 (n = 703). For Fig.6. (n = 678) as it was further description of the response given by the mothers to question asked in Table 5 that what health services they seek. For Fig. 7 (n = 673) also, it was further description of the response given by the mothers to question asked in Table 5 that what services in Aganwadi they avail.

Query 2. FGD analysis can be little bit structured following the tradition of qualitative studies.

Response: As, FGD was additional findings of the research study snd was also not part of objective of the study, so it was briefly highlighted.

Discussion:

Query 1. In limitation it can be added – as researcher is collecting data and giving intervention – chances of bias need to be mentioned.

Response: As the results were based on the responses given by the subjects, the chances of bias was reduced. However, the researcher accepts the chances of bias.

Query 2. Reason for drop outs needs to be mentioned.

Response: Drop outs were there as it was covid time. Some mothers and families refused and some children went to their grandmother's house.