

A Research Protocol of an Experimental study on “The impact of adolescent health intervention package on the knowledge and bio-behavioral health among adolescent girls of selected schools in and around Karad city

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Abstract

Background: Adolescent is a phase of rapid growth and development during which physical, psychological and emotional changes occur, so adolescent period is the very important period in an individual's life. The physical development that occur during adolescence along with psychological, behavioral and social changes that mark this period as a critical stage towards becoming an adult. In this research we ruled out the knowledge and biobehavioral health of adolescent girls. **Methodology:** The research has been structured as an experimental study. The total of 750 adolescent girls will be taken from selected Marathi medium schools studying in 7th, 8th & 9th std. Convenient sampling technique will be used. With adolescent health intervention package period of study will be 12 months. **Discussion:** This study protocol aims to assess the impact of interventional package to improve the health and nutritional status of adolescent girls.

Keywords: Impact, Adolescent girl, Interventional package, Biobehavioural health.

INTRODUCTION

Adolescence is one of life's fascinating and perhaps most complex stages, a time when young people take on new responsibilities and experiment with independence. They search for the identity and learn apply to the values of acquired in the early childhood, and to develop the skills that will be help them to become the caring and responsible adults.

Regarding phases of adolescence in human development as well physical, psychological, cognitive and emotional development takes place in adolescence period which needs special attention. So to achieve the total health of adolescent girls we need to have the multidimensional approach covering all the aspects of adolescent health problem with special on the mental health, behavior of the adolescent towards healthy life style. This will help to create better awareness among the stakeholders about the importance of strengthening adolescent health for productive life in the future.

There is significant change in knowledge about the age group between 12 to 15 years of age related to various aspects of adolescent health about growth and development during adolescent period. So this study will help them to increase knowledge after getting educational intervention on reproductive health, physical and psychological changes, behavior of the adolescents and nutritional health and aware about various Government programs on adolescent health which will provide them to continue in adult life. It will foster self esteem, self awareness, a sense of moral responsibility and resist sexual experience.

In India there are only few designated services (which are really making an impact) for adolescent girls. Absence of friendly staff, lack of family concern regarding their health, lack of privacy and confidentiality have been identified as important barriers in accessing health services by adolescents girls.¹The adolescent health interventional package of this study will focus on the global standards of WHO to approach, promote, enhance and analyze health among adolescent girls.

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adolescent period is the very important period in an individual's life. The physical development that occurs during adolescence along with psychological, behavioral and social changes that mark this period as a critical stage towards becoming an adult.²

Adolescent period is age group between 10–19 years of age but in present study I am going to take 12 to 15 years of age adolescent girls. As this group is pre adolescent (early adolescence) and is characterized by rapid physical growth, psychological and behavioral changes.^{3,4} Adolescent girls can be showing the different reactions to complex of the changes occurring during the period of adolescence.⁵ Girls should properly guided about these all changes, so they can have smooth transition to an adolescence and their distress in handling with these changes is minimized.⁶

Also I am going to include nutritional education program to improve the nutritional status and nutrition knowledge of the adolescent girls. Anemia is major nutritional problems observed in the girls during the adolescence period, affecting their growth and development and to increasing their vulnerability to the unproductive. Adolescence is a crucial time for to improving knowledge levels of adolescent girls towards their good nutrition practices.⁷

Focus group discussion with teachers, parents and adolescents girls –

- Based on focus group discussion preparation of interventional package
- Assessment of health of adolescent girl
- Administration of interventional package and those girls have poor health status bring them to OPD for additional help.

As a researcher I will design the adolescent health interventional package with the help of focus group discussion by involving parents and adolescent girls together. And discuss on adolescent period where the researcher ask the question and understand the barriers as well as parent child interpersonal engagement. After assessing impact of adolescent health interventional package I will help them to overcome from the behavior of adolescent girls and will increase the health status of adolescent girls. So I have decided to provide educational interventional package with assessing anthropometric measurement and checking the investigation like HB estimation and to provide nutritional education necessary for correction of anemia and for proper growth and development.

AIM: To assess the impact of interventional package to improve the health and nutritional status of adolescent girls.

Considering the above aim will change the behavior of adolescent girls regarding physical sexual reproductive health, nutritional status and also will increase awareness regarding Government programmes related to adolescent health.

Reaching out to the adolescents through outreach services is one of the global standard for quality health care for the adolescents. The purpose of the outreach activities of adolescent girls health care to reach the adolescents by bringing their services close to the where they are exactly.⁸ The operational phase of this study will therefore focus on the fulfillment of global standards laid by the WHO to approach, promote, enhance and analyze health among adolescent girls

OBJECTIVES OF THE STUDY:

1. To assess the impact of adolescent health intervention package among the adolescent girls by:
 - a) Assessing the increase in awareness regarding physical, emotional and psychological changes during period of adolescence as a result of intervention and
 - b) Assessing improvement in the health and nutritional status of adolescent girls as a result of intervention.

METHODOLOGY:

This study will be conducted in the selected Marathi medium schools in and around the Karad city with the approval of

Institutional Ethics Committee Krishna Institute of Medical Sciences Deemed to be University, Karad.

Source of data : Adolescent girls studying in 7th, 8th& 9thof selected schools in and aroundKarad.

Research approach : Quantitativeand qualitativeapproach will be used for the study.

Research design : **Experimental research design. (prospective study)**

Research setting : Selected Marathi medium schools from Karad city and Upto 15 kilometers radius from Karad.

Population : The population of the study comprises of Adolescent girls studying in 7th, 8th and 9th std. from selected school in and around Karad.

Sample : Adolescent girls studying in 7th, 8th, and 9th std. from selected school in and around Karad..

Sample size : 250girls from each class of 7th, 8th and 9thstd. Calculated the sample size as per previous studies by statistician.

Sampling technique :-Convenient sampling technique.

Duration of the study: Total duration of study will be 3 year.

1. Data collection period will be one year.
2. Analysis of data six months.
3. Chapter writing one and half year.

Inclusion criteria :

Adolescent girls:

1. Adolescence girls who between the age group of 12-15 years.

Exclusion criteria:

Adolescent girls:

- 1)Whose parents are not available for giving consent at time of data collection.
- 2)Who are not available at the time of data collection
- 3)Adolescent girls who didn't have good auditory or listening capacity

TEND-AND BEFRIEND PROGRAM :

This program refers to a health interaction of the researcher with the parents of the adolescents which would include delivery of knowledge and discussion on :

- Physical, emotional and psychological changes during adolescent period
- Importance of parent-child interaction and trust relationship
- Virtues that help establish good parent-child interpersonal engagement

Long-term benefits of timely intervention

ADOLESCENT HEALTH INTERVENTION PACKAGE:

Taking into consideration the strategies of Adolescent Reproductive Sexual Health strategy of India.(ARSH)⁹ and the WHO global standards for quality health-care services for adolescents ¹⁰this package has been designed to include the health literacy, gatekeepers, care services by competent health care providers in a well equipped facility with equity and non-discrimination, and further analysis for outcome and quality improvement.

The WHO global standards state that the health facility should provide a package of information, counseling, diagnostic, treatment and care services that fulfills the needs of all adolescents. Services need to be provided this facility and through the referral linkages and also the outreach.¹¹ WHO also directs the adolescent friendly initiatives to sufficiently address the issues of sexual and reproductive health, physical, nutrition, pycho social health. Keeping this in view the below mentioned health intervention package is formulated.

The adolescent health intervention package in this study refers to the combination of multifaceted intentional involvement with the health of the adolescent girls through provision of the following:

- I. Adolescent health education program.
- II. Total health check-up of adolescent girl.
- III. Tend& befriend program: a parent based intervention
- IV. Follow –up assessments at 6th ,12th month after first contact

INTERVENTION PACKAGE ON KNOWLEDGE AND BIOBEHAVIOURAL HEALTH

a) Intervention consist of

- 1) Physical health status assessed through general head-to-foot examination and baseline investigations like hemoglobin estimation will be done.
- 2) Nutritional status indicators: height, weight, BMI, Mid-Arm circumference and 24 hours dietary recall will be collected.

Intervention consist of an educational 3 sessions each session 45 minutes duration that will cover structured teaching program on reproductive health, biobehavioural health and nutrition education.

1. Bio-behavioural health :

According to the medical dictionary¹² the term Bio-behavioural is an adjective which suggests 'of or relating to relationships among adolescents behavioral, psychological, psychosocial, and their biological processes like physical processes as in progressions or the treatment of a diseases.'
Bio-behavioural health refers to the following :

- Physical health status assessed through general head-to-foot examination and baseline investigations like hemoglobin estimation will be done.
- Nutritional status indicators: height, weight, Mid-Arm circumference and 24 hours dietary recall will be collected.
- Reproductive health assessed through information related to pubertal changes, menstruation, sexual behaviour, any early pregnancy related issues.
- Psycho-social factors like emotional status, family and social support towards health promotion and maintenance ,
- Behavioral factors like physical,sexual and reproductive health maintenance practices, practice of risky behaviors and nutritional practices.

PLAN FOR DATA COLLECTION:

- Ethical clearance will be obtain from ethical committee of KIMSDUKarad.
- In and around KaradTaluka up to 15 kilometers radius from Karad total 37 marathi medium schools are there among them 25 schools will be selected by lottery method and under that 7th, 8th and 9th std. adolescent girls will be selected from each class

250 adolescent girls will be enrolled in the study till the sample will completing I am taking the Marathi medium schools in and around Karad city. After obtaining their assent and the consent of their parents since the initiative is being implemented by the researcher. The data will be collected from these schools till the 750 adolescent girls. More samples will be taken to prevent attrition rate (mortality) or drop out.

- Informed consent will be obtain from concerned authority Principal of the school.
- Purpose of the study will be explained to the parents and participant and informed consent will be obtained from the parents of girls who are below age of 17 years and those girls are above 18 years old child assent will be obtained from them.

OPERATIONAL PLAN AND DATA COLLECTION PROCEDURE:

Phase –I (two months)

- Conduct Focus group discussion involves gathering the stakeholders like adolescent girls, parents and teachers and discuss on adolescent period where the researcher ask the question and understand the parent child interpersonal engagement and perceived barriers to family support by the adolescent girls.
- Prepare the Adolescent health intervention package and module of ‘Tend & befriend’ Program.
- Validate the tools and determine their Reliability
- Train a team of trained assistants / educators and ensure preparation through objective evaluation of their knowledge using structured questionnaire and competency through Microteaching sessions.
- Prepare a schedule for a parent meeting , health education session.
- Obtain permissions from appropriate authorities like school approval.

Phase –II (2 months)

Obtain written consent from the parents of the adolescent girls and assent from the adolescent girls through a orientation program

- Randomly selected 30 girls in each class for pilot study.

Phase- III(4+2 months)

- Conduct Tend & Befriend program for the parents with initial pre-test , delivery of session and a post –test [Administer tend and befriend program in two schools to only the parents while in other two schools with participation of both parent and the adolescent girls to find comparison in the effectiveness of two approaches.]
- Conduct pre-test of knowledge, and practices related to adolescent health among adolescent
- Administer the Adolescent health intervention program as per schedule
- Physical health status assessed through general head-to-foot examination and baseline investigations like hemoglobin estimation will be done. Those adolescent girls are diagnosed as anemia refer to the GynacOPD of Krishna Hospital Karad for further treatment.
- Nutritional status indicators: height, weight, Mid-Arm circumference and 24 hours dietary recall will be collected.
- Administer Post test after one week of the delivery of the program with help of school teachers
- [Analysis of results within 2 months]

Phase –IV(6 months) First comprehensive follow-up 6 months after first contact

- Conduct testing of knowledge and health practices in the first follow-up as per schedule with team approach
- Analyze the score and reinforce the Adolescent health intervention program to those below average score.
- Maintain a dairy to ensure health follow-up of the physical , nutritional, psychosocial and behavioural progress of the adolescent girls with help of stakeholders.i.e teachers and parents

Phase-V (6 months) Second follow-up at 12th month after first contact

- Parent meeting to obtain a feedback pertaining the impact of adolescent health intervention package and reassess their practices towards adolescent health issues.
- Follow up of the physical , nutritional, reproductive , psychosocial health and behavioural progress.
- Assessment of their health practices

IMPACT MEASURES:

1. A structured knowledge questionnaire to assess the pre and post-test knowledge of participants after administration of Adolescent health intervention package. Assessed knowledge score will be divided in Good, Average and Poor score.
2. Physical health status assessed through general head-to-foot examination and baseline investigations like hemoglobin estimation before and after administration of Adolescent health intervention package
3. Nutritional status indicators: height, weight, Mid-Arm circumference and 24 hours dietary recall will be collected before and after administration of Adolescent health intervention package.
4. Diagnosis in case of anemia and other nutritional deficiencies , menstrual abnormalities.
5. Improvement in the nutritional status of the adolescent girls as evident by their Body Mass Index
6. Improvement in the perceived family support as evident through Focus group discussions

EXPECTED RESULTS:

The study expected outcome will concert on adolescent health intervention package will be beneficial to increase the knowledge and biobehavioural health of adolescent girls.

DISCUSSION:

The study Aim to evaluate the impact of interventional package to improve the health and nutritional status of adolescent girls. This research will help to decide how the interventional package will improve the knowledge & biobehavioural health of adolescent girls.

ETHICS & DISSEMINATIONS:

The approval of the committee on institutional ethics must be obtained prior to the start of the study. Respondents must be treated with the respect first. Upon meeting with the requirement of inclusion & exclusion criteria, the respondents are taken for the review.

FINANCIAL SUPPORT & SPONSORSHIP:

Plan to submit blue print of Fund required for conducting the research study.

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