THE EFFECT OF NUTRITION EDUCATION TO PROSPECTIVE BRIDE IN PREGNANCY NUTRITION PREPARATION TO PREVENT THE RISK OF STUNTING: STUDY LITERATURE REVIEW

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ABSTRACT

The National Strategy Program in Indonesia for the Acceleration of Stunting Prevention targets specific nutrition interventions for Women of Reproductive Age. The government implemented a health examination program for prospective brides to prevent the risk of stunting. This study aims to describe the implementation of nutrition education for brides in Indonesia, and its effect on knowledge, attitudes, and consumption behavior of nutritious food as a preparation for a healthy pregnancy. The method of this research is Systematic Literature Review by screening articles using the PRISMA chart. The article sources used were Google Scholar and Garuda with article years 2020 to 2022, 333 articles were found, and 16 articles were required to be reviewed using the Preferred Reporting Items for Systematic Reviews and Meta-Analyses method. Description of research results is the locations used to provide education include the Office of Religious Affairs (Kantor Urusan Agama), Puskesmas, and local area halls. The educational media used are booklets, leaflets, digital applications, social media, and PowerPoint presentations. The nutrition materials given were 1000 HPK, preconception nutrition, and anemia prevention. The results of the study provided nutrition education had a significant impact on knowledge and attitudes, but education would have an impact on behavior if it was given at least 3 times. This study concludes that the nutrition education strategy needs to include factors that affect education acceptance such as educational background and social economy, and the impact assessment of education must also include the behavior of consuming nutritious food and changes in the body's nutritional status.

Keywords: Nutrition education, bride, stunting.

ABSTRAK


Kata Kunci: Pendidikan gizi, calon pengantin, stunting.
INTRODUCTION

The 2018-2024 National Strategy Program for the Acceleration of Stunting Prevention has begun to be implemented in Indonesia. Among the obstacles in preventing stunting are the ineffectiveness of stunting prevention programs, not optimal specific nutrition interventions and nutrition-sensitive interventions at all levels, and the lack of advocacy, campaigns, and dissemination related to stunting, and various prevention efforts (1). Since it was proclaimed as one of the national strategic programs, there have been various promotion and intervention efforts for both priority targets, namely pregnant women, nursing mothers, and children aged 0-23 months, as well as important targets, namely adolescents, women of childbearing age and children aged 24-59 months. The prevalence of anemia in pregnant women is 48.9%. The prevalence of anemia in pregnant women aged 15-24 years is 84.6%, while the prevalence of anemia in pregnant women aged 25-34 years is 33.7%. The incidence of anemia in women of childbearing age as the group closest to pregnancy, the highest incidence rate is at the age of 15-24 years with a prevalence of 32% (2). While it is known that every pregnant woman's need for iron and nutrients will increase, so she is at risk of anemia and chronic lack of energy, for this reason, education during the pre-pregnancy period about nutrition is something that can be done to prepare for a better pregnancy and reduce the risk of anemia and chronic lack energy during pregnancy. Prevention of nutritional problems from the upstream is intended to prevent various early symptoms from appearing so that intervention can be given early on, just as prevention of stunting from before pregnancy is intended to prepare for healthy pregnancies so that mothers give birth with pins and babies who are born healthy and avoid various complications. due to malnutrition which can be at risk of stunting. In general, the baby is independent of the mother's diet during pregnancy, the baby takes nutrients from the mother's stores, and the turnover of protein and fat in the tissues, which is related to the composition of the mother's body. The state of nutritional status during life before pregnancy becomes very important to ensure the availability of nutrient stores that will be utilized by the baby. A baby will be born with all the ovums it will have in its lifetime. Therefore, the quality of the eggs reflects the nutritional status of the mother. The quality of the egg (ovum) that will become a grandchild is determined by the nutritional status of the grandmother. This is what underlies the flow of 100 years of nutrition because it involves 3 generations of the risk of non-communicable diseases (3).

One of the breakthroughs made is the existence of a Marriage Guidance Program for Bride-to-be in collaboration between the Ministry of Health, the Ministry of Religion, and cooperation with the National Population and Family Planning Agency where apart from being given religious guidance each prospective bride and groom are also asked to carry out a health examination and be given health counseling as one of a condition of marriage (4–6). Counseling regarding nutrition to the bride and groom is very important as a preparation for nutritional information before pregnancy. Since the premarital medical check-up program, many couples have had health checks. Based on the Indonesian
Statistics Report, there were 1.74 million weddings throughout 2021 and 1.79 million weddings in 2020. In 2021 West Java province is the province with the most weddings, namely 346,484 weddings or 19.88% of the total national marriages. (7). Based on a preliminary survey that was conducted in one of the cities of West Java, namely Depok City, the Ministry of Religion of Depok City, it is known that the number of pairs of prospective brides who are married in 2021 is 11,030 couples, with an average of 900 couples getting married every month at the KUA in Depok City. It is also known from data from the Depok City Health Office, the number of Catins carrying out examinations in the period from January to August 2022 was 1,282 Catins who were served reproductive health checks by the Depok City Community Health Centers, or an average of 160 Catins every month (8). This number shows that of the number of prospective brides who are married, only 17% of them have pre-marital health checks. The counseling medium for prospective brides that is currently being provided as a standard information media is the Healthy Bride and Groom Card. The education provided through the Catin Health Card includes general information about an ideal pregnancy and its impact if pregnant is not in ideal conditions, therapy for Fe consumption, how to consume it, and the schedule, as well as general information related to psychological preparation for marriage (9). Among the various education given to prospective brides and grooms, education related to nutrition is very important, because it is also one of the national strategies to prevent stunting before pregnancy so that the mother’s nutritional preparations are adequate before pregnancy. Bride-to-be can be a strategic target in providing nutrition education because indirectly the bride-to-be is a pre-conception group. For this reason, researchers want to research know the description of how Nutrition Education is Implemented for Bride-to-be in Indonesia through a Systematic Literature Review.

METHOD
This research method uses a Systematic Literature Review, i.e. a summary of all previous research on the topic of interest, with a systematic research protocol approach (10). Conduct systematic reviews of multiple sources to identify knowledge gaps, scope literature, clarify concepts, investigate research conduct, or inform systems reviews (11). Analysis of article data using the format Preferred Reporting Items for Systematic Reviews and Meta-Analyses or commonly called PRISMA (11).

The topic of this research is the Implementation of Nutrition Education for Bride-to-be in Indonesia to Prevent the Risk of Stunting Children. Based on this topic, several things can be identified, including the implementation of nutrition education for prospective children and the risk of stunting.

Education for the bride and groom is interpreted as providing education when the bride and groom carry out health checks at the Possesses by the pre-marital screening program according to directions from the Ministry of Health, BKKBN, and Ministry of Religion (12). The material provided in education according to the Healthy Bride and Groom Card is education related to the prevention of Anemia by examining hemoglobin and preventing Chronic Energy Deficiency through examination of
Body Mass Index and Upper Arm Circumference (9). So that the education provided can be about the prevention of anemia and chronic lack of energy. While the understanding of the risk of child stunting is that one of the conditions of malnutrition in the pre-pregnancy period can be a cause for the emergence of various nutritional disorders during pregnancy and childbirth, such as the risk of bleeding in pregnant women with anemia, pregnant women with chronic energy deficiency in babies born at risk of having low birth weight, which can increase the risk of stunting children.

The language used in the source article can come from Indonesian and English. The types of source articles used come from primary research from sinta-indexed scientific journals. The journals are from Garuda website: https://garuda.kemdikbud.go.id/ and Google Scholar website: https://scholar.google.com/. The articles were obtained in the form of primary research with full text.

Articles will be searched based on the PICO format. The population in this study were prospective brides and grooms who had premarital examinations at health centers in Indonesia by the start of the pre-marital counseling program in Indonesia, so the articles used for the last 3 years were 2020, 2021, and 2022. The intervention provided is nutrition education or nutritional counseling. There is no comparison with other interventions.

The outcome that is expected is the behavior of preparing for pregnancy nutrition to prevent the risk of stunting which can be measured as prevention of Anemia and Chronic Energy Deficiency. Based on this, the following keywords are used in searching journal articles:

<table>
<thead>
<tr>
<th>Keywords:</th>
<th>English</th>
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<tbody>
<tr>
<td>‘Calon Pengantin’</td>
<td>‘Bride or Groom’</td>
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<td>‘Edukasi Gizi atau Konseling Gizi’</td>
<td>‘Nutrition Education’ or ‘Nutritional Counseling’</td>
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<td>‘Perilaku Kesehatan’</td>
<td>‘Health Behaviour’</td>
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<td>‘Gizi Prakonsepsi’</td>
<td>‘Preconception Nutrition’</td>
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<td>‘Resiko Stunting’</td>
<td>‘Stunting Risk’</td>
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</tbody>
</table>

**Query:**

- ‘Edukasi Gizi’ ATAU ‘Konseling Gizi’ DAN ‘Calon Pengantin’
- ‘Edukasi Gizi Prakonsepsi’ ATAU ‘Konseling Gizi’ DAN ‘Resiko Stunting’

The time to search for articles is April 13-15th 2023. Then, in the process of searching for articles, there are several criteria, including:

- There are Inclusion Criteria in this research. The topic is Implementation of Nutrition Education for Bride-to-be in Indonesia in Efforts to Prevent the Risk of Stunting Children. The text availability used is full text. The type article is Scientific Journal of primary research (primary research
studies). Publication period last 3 years (2020, 2021, 2022) and language of article Indonesian and English. The exclusion criteria is articles that are not included are other than primary research.

Then in the article selection process carried out by Researcher 2. The article search process starts by searching for articles with keywords according to the table above and then sorting articles according to the title, research question, and type of article. Then download the appropriate article (free full text) / sort available articles full text. Check for duplication of article files using the Mendeley App and check again when the article is published. Read the title and abstract, if it does not meet the inclusion and exclusion criteria, it will be excluded. Read the article thoroughly, if there is an article that is not suitable, it is removed. Extracting article data according to format and summarizing the results of article analysis. The data extraction process uses a data extraction format that is filled in for each selected article using Preferred Reporting Items for Systematic Reviews and Meta-Analyses Extension for Scoping Reviews (PRISMA-ScR) Checklist (13,14).

RESULTS AND DISCUSSION

PRISMA Chart

![PRISMA Chart](image-url)

**Picture 1. PRISMA Chart**
### Table 2. Research Article Data

<table>
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<th>No.</th>
<th>Year</th>
<th>Authors</th>
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<tr>
<td>1</td>
<td>2019</td>
<td>Esti</td>
<td>The effects of health education on increasing knowledge, attitudes, and stunting prevention in premarriage couples in Bangkalan Madura</td>
<td>This study aimed to explain the influence of modules and peer group discussions on stunting prevention at pre-marital couples.</td>
<td>Experiment al Quasy Design</td>
<td>Bangkalan, Madura</td>
<td>Samples were taken from as many as 40 respondents for two groups to be studied.</td>
<td>The dependent variable in this research was knowledge, attitude, and action to prevent stunting. Data were collected using a questionnaire and analyzed using the Wilcoxon test, Mann Whitney-U, and delta tests with significance levels α &lt;0.05. From the results of the bivariate analysis, there is an effect of health education on knowledge (p = 0.000), but on attitudes (1.000) and actions p &gt; 0.05, there is no effect of the intervention.</td>
<td>There is no influence on the two groups because good attitudes and knowledge do not always reflect conflicting actions.</td>
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<td>2</td>
<td>2020</td>
<td>Erni Rosmida</td>
<td>Acceptance and Knowledge of the Prospective Bride (Catin) Women Before and After Nutrition Education Using 1000 HPK Application Based on Android</td>
<td>This study aims to know the acceptability and the change of knowledge about 1000 HPK of brides at KUA Pesanggrahan District, South Jakarta by using the &quot;My1000Days&quot; application.</td>
<td>The method used in this study is Research and Development (R&amp;D).</td>
<td>Pesanggrahan, Jakarta Selatan</td>
<td>The research samples were 40 bride</td>
<td>The results show that the acceptability of application by experts is 83% and the acceptability of application by brides is 95.7% which is categorized very well. Media feasible test gets an n-gain value of 0.77 which is categorized as high and the results of the Paired t-test obtained a p-value of 0.000 (p &lt;0.5) which indicates knowledge difference before and after using the application.</td>
<td>Necessary to further develop existing features to increase the knowledge regarding 1000 HPK of brides registered in KUA</td>
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<td>3</td>
<td>2020</td>
<td>Ria Gusmaniar, Siti Helmya, Yhona Paramanita</td>
<td>Effects of Nutrition Education on Energy and Protein Intake in Premarital Women of Fertility in Bantul Regency, Yogyakarta</td>
<td>To determine the effect of nutrition education on changes in energy and protein intake in women of childbearing age in Sedayu District, Pleret District, and Pajangan District, Bantul</td>
<td>Quasi experimental non-equivalent pretest-posttest with the control group.</td>
<td>Bantul, Daryah Istimewa Yogyakarta</td>
<td>The sample in this study amounted to 58 people, consisting of 29 samples of the experimental group and 29 control groups.</td>
<td>Energy intake of the intervention group was 1370.8 kcal pretest, posttest 1,412.2 kcal and protein intake pretest 47.8 gr, posttest 48.0 gr. The energy intake of the pretest control group was 1,482.3 kcal, the posttest was 1,346.5 kcal and the protein intake of the experimental group was 50.2 gr. posttest 42.2 gr. Statistical test results showed there were no differences in energy and protein intake before and after treatment between the intervention group and the control group (p &gt; 0.05).</td>
<td>There is no effect of nutrition education on energy and protein intake in women of premarital fertility</td>
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<td>4</td>
<td>2021</td>
<td>Arindah Nur Sartika, Tri Marta Fadhila</td>
<td>Diet Diversity to Assess Diet Quality of Pre-Conception Women in Bekasi, West Java</td>
<td>To assess the diet quality of pre-conception women</td>
<td>Observational study design, specifically using a cross-sectional approach</td>
<td>Kota Bekasi, West Java</td>
<td>About 105 “bride to be” from 8 Religious Affairs Office</td>
<td>The result showed out of 10 food groups, the median consumption of food groups consumed by respondents was 4 food groups, also the highest proportion of total food group (36.19%), followed by 3 food groups (25.71%), and 3 food groups (21.90%). The maximum score of dietary diversity is 8 (0.95%), and the minimum score is 2 (3.81%). Meanwhile, most consumed food group was staple foods (99.05%), Nuts and seeds were the least proportion of food group (3.81%) consumed by respondents. There was around one-third (38.10%) of the respondents</td>
<td>Diet diversity of pre-conception women should be improved. To prevent malnutrition, pre-conception women are suggested varying their diet. Nutrition education during</td>
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<td>5</td>
<td>2021</td>
<td>Nur Pratiwi Patata, Haniarti, Usman (17)</td>
<td>Effect of Nutrition Education on Knowledge and Attitudes of Prospective Bride and Groom in Preventing Stunting at KUA Tana Toraja Regency</td>
<td>To see the effect of nutrition education on the knowledge and attitudes of the bride and groom in preventing stunting</td>
<td>The method used in this study is quasi-experimental, with a One-group pre-post-test design</td>
<td>Tana Toraja, Sulawesi Selatan</td>
<td>About 28 brides in KUA Tana Toraja</td>
<td>The results of the Pre-test there were 2 respondents with a percentage (7.1%) who had attitude answers that fit the very good category, respondents with a good category there were 8 respondents with a percentage (28.6%), respondents with a less category there were 18 respondents with a percentage (64.3%). In the results of the Post-test I there were 24 respondents with a percentage (85.7%) who were in the very good attitude category, in the good category there were 4 respondents with a percentage (14.3%), but there were no respondents with a poor attitude category. And in the results of the Post-test II there were 26 respondents with a percentage (92.9%) with a very good attitude category, in the good attitude category there was 1 respondent with a percentage (3.6%), and respondents who had a less category there was 1 respondent with a percentage (3.6%)</td>
<td>There is a change in knowledge and attitude of the prospective bride and groom after being given nutrition education, where the average respondent has started to improve their diet to prepare for pregnancy from nutrition education that has been given before.</td>
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<td>6</td>
<td>2021</td>
<td>Methania Nanda Augustine, Siti Sulandjari (18)</td>
<td>Improving Preconception Nutrition Knowledge with an Android-Based Pocketbook Used in Pre-Marriage Guidance at KUA Gresik</td>
<td>To determine the effect of using pocketbook media based on Android on preconception nutritional knowledge mastery of prospective brides</td>
<td>quasi-experimental design with a non-equivalent control group</td>
<td>Gresik, Jawa Timur</td>
<td>60 prospective brides</td>
<td>The sampling technique was purposive sampling. The paired sample t-test showed a significant difference (p = 0.001) between the pretest and post-test scores in the group that used the Android-based pocketbook media and the ordinary pocketbook. Meanwhile, the independent sample t-test showed a significant difference (p = 0.006) between the use of Android-based pocketbook media and ordinary pocketbooks.</td>
<td>The use of an Android-based nutritional pocketbook can improve the mastery of preconception nutritional knowledge in prospective brides in Gresik and is better than the use of regular pocketbooks.</td>
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<td>7</td>
<td>2022</td>
<td>Sarman, Moh. Rizki Fauzan (19)</td>
<td>Social Media-Based Nutrition Education for Bride in Prevention Stunting in Kotamobagu</td>
<td>To see the effect of social media-based nutrition interventions in increasing knowledge and attitudes toward stunting prevention among brides.</td>
<td>A quasi-experimental study pre-post-test control group design.</td>
<td>Kotamobagu, Sulawesi Utara</td>
<td>The sample in this study were prospective brides who were already registered at KUA in Kotamobagu totaling 60 brides and grooms, 30</td>
<td>The results of Wilcoxon analysis in the intervention group showed that in knowledge and attitude variables before and after the intervention, with knowledge variable 0.000, and attitude variable 0.000, there was a significant difference. In the control group, with a knowledge of 0.660 and an attitude of 0.080, there is no significant difference. The results of Mann Whitney test analysis in the intervention group before and after treatment of knowledge and attitude variables</td>
<td>Social media-based nutrition education was proven to increase the knowledge and attitudes of brides-to-be in preventing stunting.</td>
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<td>8</td>
<td>2022</td>
<td>Tria Ningsih, Arfah Husna</td>
<td>The Effectiveness of Nutrition Education on Increasing Knowledge of The Prospective Bride</td>
<td>To examine the effectiveness of nutrition education interventions to increase knowledge of prospective brides and grooms</td>
<td>Quasi-Experiment with one group pretest and posttest</td>
<td>Kawai XVI, Aceh</td>
<td>10 prospective brides</td>
<td>Nutrition education was effective in increasing knowledge (p-value= 0.005)</td>
<td>The provision of nutritional knowledge education to prospective brides or people in the preconception period have very optimal results.</td>
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<td>9</td>
<td>2022</td>
<td>Jihan Fadhilah Arsyad, Yuli Setiawaty, Yusnidar</td>
<td>The Effect of Knowledge of the Bride and Groom Before and After Giving 1000 HPK Nutrition Education Through Media Presentations and Booklets.</td>
<td>To find out whether there is an effect of knowledge of the prospective bride and groom before and after being given 1000 HPK nutrition education through presentation media and booklets</td>
<td>Pre-Experiment design where there is no control variable.</td>
<td>Palopo, Sulawesi Selatan</td>
<td>This study used a non-randomized one-group pre-post-test design, with 26 respondents with various educational backgrounds</td>
<td>Statistical tests showed that there was a significant effect (p-value 0.000) of giving 1000 HPK nutrition education with presentation media and booklets to prospective brides before and after being given treatment.</td>
<td>That after being given health education, the average knowledge of the prospective bride and groom increased by more than 50% compared to the average before being given 1000 HPK nutrition education.</td>
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<td>10</td>
<td>2022</td>
<td>Rutdamayanti, Megayana Yessy Maretta, Yunia Renny Andhikatias, Rahajeng Putrinaningrum</td>
<td>The Effect of Preconceptive Nutrition Counseling Onattitude And Behavior of Prospective Food Selection Bride In Balong Panggang District</td>
<td>To determine the effect of preconception nutrition counseling on the attitudes and behavior of prospective brides in fulfilling preconception nutrition control in the Balongpanggang sub-district.</td>
<td>This study used a quasi-experimental design with a randomized pretest-posttest control group design.</td>
<td>Balongpanggang, Jawa Timur</td>
<td>The number of samples in this study was 78 prospective brides</td>
<td>Data analysis used the Wilcoxon test and T - independent test. The results showed that there was a significant effect on changes in attitudes (p=0.001) and behavior of the bride and groom (p=0.001) before and after the intervention.</td>
<td>Counseling is done with three repetitions in one time the week has that effect significant to changes in the behavior and attitude of the candidate the bride about the election preconception nutritional intake</td>
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<td>11</td>
<td>2022</td>
<td>Endah Wilarsih, Anik Kurniawati, Suroso (23)</td>
<td>The Effect of Nutrition Counseling on The Prospective Brides' Knowledge In The Anemia Prevention At UPTD Puskesmas Wonogiri</td>
<td>Determine the effect of nutritional Counseling on the prospective brides' knowledge in preventing anemia</td>
<td>quasi-experimental with a one-group pretest-posttest design</td>
<td>Wonogiri, Jawa Tengah</td>
<td>25 prospective brides who had their premartial health checked</td>
<td>There was an increase in the average knowledge of 19.20. The results of the analysis with the Wilcoxon signed rank test statistical test obtained a p-value of 0.000 (p &lt;0.05)</td>
<td>There was an effect of nutritional counseling on the prospective brides' knowledge in preventing anemia at the UPTD Puskesmas Wonogiri</td>
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<td>12</td>
<td>2022</td>
<td>Arfah Husna, Marniati, Enda Silvia Putri, Siti Mansyaroh Finti Siregar, &amp; Siti Arafah Carolina (24)</td>
<td>The Effect of Leaflet as Educational Media on the Pre-Conception Nutrition for Prospective Bride and Groom</td>
<td>To examine the effect of the intervention of leaflet media education methods on increasing knowledge about preconceptional nutrition of the bride and groom</td>
<td>Quasi-Experimental design with one group before and after intervention design</td>
<td>Johan Pahlawan, Aceh</td>
<td>20 prospective brides at KUA</td>
<td>Based on the results of the bivariate test, it is known that there is a significant effect of the leaflet media education method on increasing knowledge about preconception nutrition of the bride and groom.</td>
<td>The intervention of the leaflet media education method has an effect on increasing knowledge, about preconception nutrition of the bride and groom.</td>
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<tr>
<td>13</td>
<td>2022</td>
<td>Dominikus Raditya Atmaksa, Nila Reswari Haryana, Qonita Rachmah, Stefania Widy Setyaningtyas, Anisa Lailatul Fitria, Azzah Ajeng Pratiwi, Aliffah Nurria Nastiti1, Asri Meidyah Agustina, Rian Diana, Mahmud Aditya Rifici (25)</td>
<td>Comparison of Online and Offline Methods in Increasing Awareness of Future Bride and Groom to Preconception Nutrition as an Effort to Prevent Stunting in Marriage Preparation Courses</td>
<td>The research was conducted by developing educational media based on hybrid learning (a combination of online and offline). This research is in the form of nutrition education based on the construction of the Health Belief Model for adolescents and prospective brides, especially to improve intentions, attitudes, subjective norms, and perceived behavioral control towards the application of preconception nutrition.</td>
<td>A quasi experimentally design using pre and post-tests</td>
<td>Medan, Sumatera Utara</td>
<td>Total peserta yang mengikuti materi gizi prakONSEPSI dalam kursus persiapan nikah offline sejumlah 86 orang dan online sebanyak 119 orang.</td>
<td>Total participants who followed the nutrition material preconception in an offline marriage preparation course 86 people and online as many as 119 people.</td>
<td>It's recommended to provide preconception nutrition education to wedding preparation courses that can be given offline.</td>
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<tr>
<td>14</td>
<td>2022</td>
<td>Anisa Mahraeal Subu, Siti</td>
<td>The Effect of Nutrition Education on Knowledge and Attitude</td>
<td>This study aims to determine the effect of nutritional</td>
<td>This research is a type of</td>
<td>Abeli, Sulawe Tenggara</td>
<td>The sample in this study was 39 female catin in</td>
<td>The results of the research show that the p-value of the knowledge and attitude variables is 0.000 &lt; α (0.05 ). (α = &lt;0.05).</td>
<td>there is an effect of nutritional education in the first</td>
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<td>15</td>
<td>2022</td>
<td>Titih Huriah, Rovi Apriani, Eka Suci, Dewi Puspita</td>
<td>Pre-Marital Education (PME) Program Through Online Media to Improve Behavior on Stunting Prevention</td>
<td>To determine the effectiveness of the Pre-Marital Education program for increasing stunting prevention behavior</td>
<td>Quantitative method (Quasy Experiment).</td>
<td>Gunung Kidul, Daerah Istimewa Yogyakarta</td>
<td>19 pairs in the intervention group and the control group.</td>
<td>Pre-Marital Education uses Instagram's online media. The data analysis in this study used the Wilcoxon Signed Rank Test and Mann-Whitney Test. The results showed that the behavior in the intervention group had signed with a p-value = 0.000, while the control group was not significant with a p-value &gt; 0.05. The Mann-Whitney U test analysis results in both groups after the intervention were 0.002 with a p-value of &lt; 0.05, which means that Pre-Marital Education affects the behavior of pre-marital couples in preventing stunting.</td>
<td>Pre-Marital Education effectively increases stunting prevention behavior in premarital couples.</td>
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<td>16</td>
<td>2022</td>
<td>Megayana Y. Mareetta, Dedi Rachmadi, Farid Husin, Yunia Renny Andihikatias, Aris Prastyoningssih, Deny Eka Widyastuti</td>
<td>The Pregnancy Preparation Knowledge Increase of The Risky Bride Candidates Through Preconception Health Education</td>
<td>This the research analyzed the effects of preconcepton health education with a booklet on knowledge of pregnancy bride candidates at risk</td>
<td>The quasi-experiment research of pre-postest design with control groups was conducted in 4 Offices of Religious Affairs in Surakarta</td>
<td>Kota Surakarta, Jawa Tengah</td>
<td>60 bride candidates were divided into control and intervention groups comprising 30 subjects/groups selected by consecutive sampling</td>
<td>The comparison of increased knowledge between the two groups was tested with the Mann-Whitney test. The booklet effect on the knowledge of bride candidates at the pregnancy risk was calculated from the value of the Risk Ratio (95% CI). Result: There is an increase in knowledge of 80.9% for bride candidates who get preconception health education with booklets. Subjects who get preconception health education with a the booklet had 1.14 times the opportunity to experience an increase in knowledge compared to the control group.</td>
<td>Preconception health education with a booklet can increase pregnancy preparation knowledge of bride candidates at risk.</td>
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Based on the sources of information from the 16 articles above, several points were found about education is given to prospective brides in various provinces in Indonesia in a variety of different ways, as some are located at the local Religious Affairs Office (15–19), at the puskesmas (20), in the hall (21), both online or offline (22,23). Most of the locations used are at the Office of Religious Affairs (Kantor Urusan Agama).

The media used include modules (24), applications (15,17), lists of daily food consumption (16,25), online social media (23,26), presentations (27), booklets (18,19,27), pocket books and leaflets (21,28). Of the various educational media used, booklets are the most widely used. Currently the procedure for providing education is minimal by giving and using the Healthy Bride Candidate Card leaflet (9), but researchers have not found studies on the effectiveness of the card or leaflet that has been issued in 2021.

Some of the nutritional education materials provided included 1000 HPK (15,18,27), Preconception Nutrition (25), Preconception Diet (16,28), and Anemia Prevention (20). One of the indicators are nutrition education has an effect on increasing knowledge (15,17–20,24,27), increasing attitudes (18,26,29) , but not always increasing actions or behavior in preparing and fulfilling preconception nutrition (24), using online media increases behavior (23), and there is no difference in food consumption before and after being given education (25). For this reason, repeated education is needed, and monitoring to assess the impact of providing education. The data collection method used, such as cross sectional, makes it difficult to assess changes in behavior.

Based on the 16 sources of articles that have been reviewed, several follow-ups are needed, including it is necessary to analyze the background factors that influence the provision of education, such as education, socio-economic and so on. The majority of research uses quasi-experimental methods with pretest and posttest on the same day, but for variables such as attitudes and behavior it takes longer time and more detailed instruments to assess the phases of change that occur. The media used needs to be developed to suit current technological developments, online media or in the form of applications that contain education and monitoring can be an option, so that it can be accessed flexibly Providing education not only once, but needs to be repeated at least 3 times to change behavior, due to the limitations of pre-marital examinations only once, it is necessary to make a strategy of providing education 2 times which does not always have to come to a health facility.

Government programs, namely medical examinations for the bride and groom and health education, need to be studied and evaluated, especially for areas that have fully implemented the program, to see the impact on health during pregnancy. Nutrition education information provided needs to target the nearest indicators of research subjects, such as prospective brides, nutrition education focusing on preventing anemia and chronic energy deficiency is important as an indicator of the risk of stunting in pregnancies with anemia and CED. Collaboration with nutritionists and the health promotion
team as well as cadres and the local PKK Team can be an option apart from being an educator as well as being a monitoring team.

CONCLUSION AND SUGGESTIONS

Based on the 16 scientific articles that have been analyzed, it is known that some things, including providing preconception nutrition education, are proven to affect knowledge and attitudes, but there is not always a change in food consumption behavior. The most widely used nutritional education media are booklets and leaflets. The most widely used educational material was about 1,000 HPK, and the place where education was provided the most was at the Office of Religious Affairs (Kantor Urusan Agama), in addition to that education was also provided at the local community health center and hall.

Education providers need to focus on material that is 'important' to be known by the bride and groom, as information on preparing preconception nutrition. Materials on the prevention of Anemia, prevention of KEK, and information on food variants that contain important nutrients in preparing for pregnancy need to be emphasized more. Repetition of education at least 2-3 times needs to be considered. The provision of education can be followed up in collaboration with local stakeholders such as Cadres or the PKK Team so that they can monitor prospective brides who are at risk.

The next researcher can examine the factors that influence education acceptance as a research variable. The research time needs to be extended to see the effectiveness of the length of time education is practiced and the impact on changes in nutritional consumption behavior. Development of existing educational media, by adding monitoring facilities needs to be considered. Research on the evaluation of pre-marital examination and education programs that have been running needs to be done.

REFERENCES


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