




Review

Applying of Positive Deviance Approach to Promote Young Adults' and Adolescents' Health: A Literature Review

Chawapon Sarnkhaowkhom ¹ , Payao Phonsuk ¹, Siriporn Santre ¹  and Wanich Suksatan ^{2,3,*} 

¹ Department of Health Education and Behavioral Sciences, Faculty of Public Health, Mahidol University, Bangkok 10400, Thailand

² Faculty of Nursing, HRH Princess Chulabhorn College of Medical Science, Chulabhorn Royal Academy, Bangkok 10210, Thailand

³ Trudy Busch-Valentine School of Nursing, Saint Louis University, St. Louis, MO 63103, USA

* Correspondence: wanich.suk@cra.ac.th; Tel.: +66-82755-00257

Abstract: The positive deviance approach assumes that a community's problems have already been solved. 'Positive deviants' succeed despite sharing many of the same constraints as others. Positive deviance, which has its roots in international public health, is increasingly being applied to healthcare, with a various-stage process proposed depending on the setting. However, the quality of current healthcare applications varies, and at each stage of the process, different study designs and methods are used. This paper aims to identify the definition and process of the positive deviance approach and summarize this approach in healthcare and health promotion to promote young adults' and adolescents' health. Additionally, examples of interventions based on a positive deviance approach to improve young adults' and adolescents' health and recommendations for further studies are also presented.

Keywords: adolescents health; literature review; positive deviance; young adults health



Citation: Sarnkhaowkhom, C.; Phonsuk, P.; Santre, S.; Suksatan, W. Applying of Positive Deviance Approach to Promote Young Adults' and Adolescents' Health: A Literature Review. *Sustainability* **2022**, *14*, 10669. <https://doi.org/10.3390/su141710669>

Academic Editors: Wenfei Zhu, Yuliang Sun and Mihajlo (Michael) Jakovljevic

Received: 3 August 2022

Accepted: 23 August 2022

Published: 26 August 2022

Publisher's Note: MDPI stays neutral with regard to jurisdictional claims in published maps and institutional affiliations.



Copyright: © 2022 by the authors. Licensee MDPI, Basel, Switzerland. This article is an open access article distributed under the terms and conditions of the Creative Commons Attribution (CC BY) license (<https://creativecommons.org/licenses/by/4.0/>).

1. Introduction

Positive deviance is an approach to behavior modification based on community engagement and implemented to enhance health outcomes, particularly nutrition experience, in more than 40 countries worldwide. The positive deviance approach is a new paradigm for health promotion that employs a novel strategy [1]. This strategy is predicated on the notion that community-based solutions to problems already exist and are frequently employed by positive deviants who engage in beneficial, albeit uncommon, healthy behaviors [2]. This concept has more recently been applied to various social and healthcare research studies, such as maternal and newborn health, breastfeeding, sexually transmitted infections prevention, physical activity, weight control interventions, and promoting food safety and nutrition [3–6]. Once identified, community members are exposed to these practices in various ways including young adults and adolescents.

Several mental health interventions have been applied in schools in order to promote positive health behaviors, such as socio-emotional competencies and social skills [7,8]. Despite the multidimensional nature of this global challenge, which necessitates multifaceted approaches, various activities continue to seek solutions that are still needed to reduce the magnitude of mental health issues worldwide [9]. As young people, they are considered important human resources for national development. They can play an active role in help-seeking, particularly as they get older, which is essential to ascertain their perspectives on the barriers to seeking and accessing help for enhancing the health literacy and maintaining physical and psychological health [10,11]. However, most health and social problems can be solved within the same community, according to positive deviance [1]. With the need-based approach, which focuses on what is missing and how to fix it, positive deviance looks at what is already working and how to build on it. In addition, a community-wide

interactive implementation program disseminates these feasible, affordable, sustainable, and acceptable local solutions to help others make positive behavioral shifts [5].

It is important to note here that the positive deviance approach could be utilized in order to improve health and developmental outcomes in young adults and adolescents. Therefore, this paper aims to identify the definition and process of the positive deviance approach and summarizes this approach in healthcare and health promotion to promote young adults' and adolescents' health. The results of this study will pave the way for further community engagement interventions and will be helpful in designing future studies to promote health outcomes in order to improve young adults' and adolescents' health and their developmental assets in the future.

2. Materials and Methods

The authors performed extensive searches in Scopus, Web of Science, PubMed, Science Direct, Cumulative Index of Nursing and Allied Health Literature (CINAHL), Google Scholar, Semantic Scholar, ThaiJo, and ThaiLIS databases for reviewing relevant articles. The keywords and MeSH terms were used to search the literature consisting of "Positive deviance", "Positive deviance approach", "Young adults", and "Adolescents health". The PICO and PICO model were also applied to an extensive search of the literature. The PICO first consists of "P" or "Participant/Population" which in this case is the young adults and adolescents, "I" or "Intervention" which in this case is the positive deviance, "C" or "Comparison" which is based on non-specific comparison, and "O" or "Outcome" which in this study is the health of young adults and adolescents. Furthermore, the PICO model was also applied to the searching strategies of descriptive and cross-sectional research which consists of "P" or "Participant/Population" which in this study is the young adults and adolescents, "I" or "Phenomena of Interests" which in this case is the positive deviance, and "Co" or "Context" which is based on the health of young adults and adolescents. We combined keywords within each domain with a Boolean operator "OR", while the domains combined with "AND."

The criteria for literature to be included in this review consist of (1) the clinical trials, controlled trials, randomized controlled trials, quasi-experimental research, descriptive, and cross-sectional research that dealt with positive deviance related to youth and adolescent health; (2) the accessibility of the full-text articles in details; and (3) published and unpublished articles in either English or Thai languages. The exclusion criteria were the outcomes of the empirical studies that have no explanation related to youth and adolescent health by using the positive deviance approach. The exclusion criteria for the selection of empirical studies included letters to editors, commentaries, and comments.

Subject headings were explored to obtain 1546 articles. After 562 duplicates were identified and removed by using Endnote X7, 984 studies remained. Then, we screened titles and abstracts simultaneously, an additional 974 studies were excluded because they did not include a positive deviance approach to young adults and adolescents' health, irrelevant study type, and were unable to find the full text. Finally, a total of 10 studies met the inclusion criteria and were included in this review. We included five cross-sectional studies ($n = 5$, 50%) [5,12–15], two qualitative studies ($n = 2$, 20%) [6,16], two community-based approaches ($n = 2$, 20%) [4,17], and one Mixed-method study ($n = 1$, 10%) [18]. The studies were implemented in eight countries including USA ($n = 3$, 30%) [12–14], Haiti ($n = 1$, 10%) [4], Vietnam ($n = 1$, 10%) [5], Mumbai ($n = 1$, 10%) [6], Indonesia ($n = 1$, 10%) [16], India ($n = 1$, 10%) [17], Canada ($n = 1$, 10%) [15], and Russia ($n = 1$, 10%) [18]. The sample size reported varied, and ranged from 15–500 ($n = 6$, 60%) and 501–6585 ($n = 4$, 40%). Studies were published between 2002–2012 and 2013–2021 in each ($n = 5$, 50%), as shown in Table 1.

Table 1. Summary of the characteristics of positive deviance studies included.

Characteristics	Number (n)	Percentage (%)
Country		
USA	3	30%
Haiti	1	10%
Indonesia	1	10%
Vietnam	1	10%
Mumbai	1	10%
India	1	10%
Canada	1	10%
Russia	1	10%
Study Design		
Cross-sectional study	5	50%
Qualitative study	2	20%
Community-based approach	2	20%
mixed methods study	1	10%
Sample Size (n)		
<15–500	6	60%
>501–6585	4	40%
Publication Years		
2002–2012	5	50%
2013–2021	5	50%

3. Definition of Positive Deviance Approach

The definition of positive deviance is widely used in multidisciplinary and commonly used in healthcare disciplines, especially in public health and nursing fields. The term “positive deviance” does not appear as one term in dictionaries but can be found separately as “positive” and “deviance”.

The word “positive” has various definitions. The definitions of “positive” in the Cambridge Dictionary of American English are (1) “full of hope and confidence, or giving cause for hope and confidence”, (2) “certain and without any doubt”, (3) “showing that a person has the disease or condition for which they are being tested”, and (4) “happy or hopeful, or giving cause for happiness or hope” [19], whereas the Oxford Learner’s Dictionary defined “positive” as (1) “good or useful”, (2) “expressing agreement or support”, (3) “directed at dealing with something or producing a successful result”, (4) “thinking about what is good in a situation; feeling confident and sure that something good will happen”, and (5) “showing clear evidence that a particular substance or medical condition is present” [20]. Therefore, “positive” can be defined as good things and showing clear evidence of the medical tests.

Apart from dictionary definitions, the “positive deviance” is found in several literatures across disciplines. The positive deviance was described by the Positive Deviance Initiative [21] as the observation across the community or organization that there are a few unusual members of the groups but they have successful behaviors and strategies to enable their health. The positive deviance is also defined as the approach to solve some problem, especially health problems, which begin with expert-driven analysis of people, explicit needs, problems, and deficits followed by the fulfilments of those problems [22]. Marsh and Schroeder [23] refer the positive deviance to an existing phenomenon of communities in which resources are scarce but a few successful or healthy individuals and families can be found among the similarity of conditions and environments compared to neighbors.

The aforementioned definitions of the term of “positive deviance” have been defined similarly in various literatures and scientific communities, especially in healthcare fields. It is possible to conclude that positive deviance is the effective approach to search and learn from the successful person who lives in the poor or scarcity environment, but still has

healthy behaviors or success compared to other people who live in the same conditions and environment.

4. Process of Positive Deviance Approach

The process of the positive deviance approach has appeared in several literatures about positive deviance across the various scientific communities. The process of the positive deviance approach was applied in the fields both of similarities and differences depending on the concepts, models, and desired outcomes. The process of the positive deviance approach was also described in four steps in the articles of Bradley et al. [24] to improve the quality of healthcare. The Bradley's positive deviance steps consists of (1) positive deviant identification; (2) in-depth study of the organizations by applying the qualitative methods; (3) statistical hypotheses testing; and (4) partnership working for evidence dissemination. According to the given positive deviance approach steps of Bradley et al. [10], in the articles of Baxter et al. [25] the modified processes of the positive deviance approach were shown from Bradley, Curry, Ramanadhan, Rowe, Nembhard and Krumholz [24] which consist of (1) usage of routine collected data for positive deviant identification; (2) generating hypotheses from qualitative study of positive deviants; (3) testing the hypotheses by the quantitative methods; and (4) dissemination of positive deviant strategies to community with the key stakeholders along with the Lawton et al. [26] modified positive deviance steps from Bradley et al. [24], to achieving patient safety which consists of (1) identification of the positive deviants in area of interest; (2) in-depth study of the positive deviants by applying the qualitative methods; (3) statistical hypotheses testing; and (4) partnership working for evidence dissemination. However, the aforementioned process of the positive deviance approach from each literature are shown in Table 2.

The process of the positive deviance approach proposed by The Positive Deviance Initiative [21] consists of five main steps (4Ds + M&E steps); (1) defining the problems, perceived causes, challenges and constraints, common practices and desired outcomes; (2) determining the presence of positive deviants; (3) discovering successful uncommon behaviors; (4) designing activities; and (5) monitoring and evaluation. Marsh et al. [27] described the steps of positive deviance in six steps, namely: (1) developing case definitions; (2) identifying the positive deviants; (3) discovering enabling factors or uncommon behaviors; (4) analyzing and confirming behaviors; (5) designing the program; and (6) monitoring the implementation and evaluating the results; along with the steps of Fowles [28] that consist of (1) defining the problems, perceived problem causes, and norm of community; (2) identifying the positive deviants; (3) discovering the unique behavior and practices; (4) designing and implementing the intervention; (5) determining the intervention effectiveness; and (6) disseminating the intervention widely. Additionally, Singhal and Dura [22] describe the six steps of the positive deviance approach, known as "The 6Ds": (1) defining the problems; (2) determining existence of statistical outliers; (3) discovering uncommon but replicable behaviors and practices; (4) designing intervention; (5) discerning effectiveness; and (6) disseminating.

The steps of the positive deviance approach that were mentioned above have similarities and differences. Each given process was initiated by the identification of problems, needs, and concerns in each community, and they attempt to discover the successful uncommon behaviors or positive deviants, respectively. Moreover, from each of above-mentioned processes, the interventions or activities would be designed and developed based on the positive deviance identifications from earlier steps and would be monitored, evaluated and disseminated in the last phases of the process of positive deviance.

Table 2. The process of positive deviance approach.

Source		The Process of Positive Deviance Approach				
Bradley et al. [24]	1. Positive deviant identification	2. In-depth study of the organizations by applying the qualitative methods	3. Statistical hypotheses testing	4. Partnership working for evidence dissemination	-	-
Baxter et al. [25]	1. Usage of routine collected data for positive deviant identification	2. Generating hypotheses from qualitative study of positive deviants	3. Testing the hypotheses by the quantitative methods	4. Dissemination of positive deviant strategies to community with the key stakeholders	-	-
Lawton et al. [26]	1. Identification of the positive deviants in area of interest	2. In-depth study of the positive deviants by applying the qualitative methods	3. Statistical hypotheses testing	4. Partnership working for evidence dissemination.	-	-
The Positive Deviance Initiative [21]	1. Defining the problems, perceived causes, challenges and constraints, common practices and desired outcomes	2. Determining the presence of positive deviants	3. Discovering successful uncommon behaviors	4. Designing activities	5. Monitoring and evaluation	-
Marsh et al. [27]	1. Developing case definitions	2. Identifying the positive deviants	3. Discovering enabling factors or uncommon behaviors	4. Analyzing and confirming behaviors	5. Designing the program	6. Monitoring the implementation and evaluating the results
Fowles [28]	1. Defining the problems, perceived problem causes, and norm of community	2. Identifying the positive deviants	3. Discovering the unique behavior and practices	4. Designing and implementing the intervention	5. Determining the intervention effectiveness	6. Disseminating the intervention widely.
Singhal and Dura [22]	1. Defining the problems	2. Determining existence of statistical outliers	3. Discovering uncommon but replicable behaviors and practices	4. Designing intervention	5. Discerning effectiveness	6. Disseminating

5. Positive Deviance Approach in Healthcare and Health Promotion

The concept of health promotion states the importance of individuals' capacity to have control over their health, and also to build others opportunities for taking their own health responsibly [29]. Positive deviance is seen as the approach that takes advantage of people who do better to overcome health problems than the rest of the community [23]. These behaviors can be uncommon; however, they are expected to be affordable, acceptable, and sustainable within the community [27].

Many health areas have applied the concept of positive deviance to provide community-based intervention to address health problems such as malnutrition, maternal and child health, and HIV/AIDS or sexually transmitted infections (STIs) prevention. The positive deviance approach also benefits health promotion, such as promoting breastfeeding practice and physical activity [3]. The problem of infant and child malnutrition was captured and has been targeted to apply the positive deviance approach. The positive deviance approach was applied in the 'Ti Foyer' Program, in Haiti during 1990s. A community health program organized an intensive training session for mothers on nutrition and child-feeding tasks for 10 days, using information from positive deviant mothers who fed their children well. The results showed a positive outcome in the child's weight (68%). Moreover, 66% of children in the program continued to gain weight even after the training finished, showing the sustainability of the program [4].

A case in Vietnam using the positive deviance approach called the 'Save the Children' program showed a reduction in child malnutrition by 75%. The nutrition improvement also had passed through the younger sibling generation, showing a better nutritional status, dietary behavior, and hygiene such as hand washing before feeding [5]. In disadvantaged areas such as urban slums, positive deviance research had encouraged mothers to exhibit optimal infant and young child feeding practices (such as exclusive breastfeeding for 6 months and providing a variety of nutritious food to children), seek advice and information on child health and nutrition from health professionals, pay attention to nutrition information from different type of medias, express and acknowledge the importance of maternal health, and rely on social support, when compared to non-positive deviant mothers. This helped health practitioners to plan for social support in the community and build a strong relationship between health workers and people [6].

A case of HIV/AIDS or STIs prevention interventions have mostly failed to lower the incidences. The prevention interventions are also complex and require skillful human resources for the program counseling and promotion of safer sexual behaviors [30]. The positive deviance approach in HIV prevention is suitable because of the intervention commonly involves individuals who perform (behaviors) better than others. With their uncommon behaviors which refers to a protective risk, the positive deviant is a key actor for a peer-led behaviors intervention [27]. A positive deviance approach was applied in a case of HIV negative among young black men who have sex with men (MSM) and have also used substances, to identify risk behaviors that could contribute to HIV infection. The finding suggested some risky behaviors, such as a reduction in condoms used when drunk and were not amenable to Pre-Exposure Prophylaxis (PrEP) resulting from in-depth interviews. The study, thus, recommended additional strategies for HIV prevention among this group. Using the positive deviance approach, in this case, has allowed health care practitioners to examine more subtle behaviors and understand their motivation as well as the approach they used to protect those with a high risk of HIV, leading to innovative strategies which could be applied in the existing intervention [31].

The positive deviance approach was also used to understand social norms leading to behaviors. In Rwanda, early sexual experiments and multiple sexual partners were common in the community even though they were at risk of HIV/AIDS infection and other STIs. A primary sexual abstinence and condom use during the last sexual intercourse were applied as the positive deviance indicators. The findings presented that the factors that influenced a primary sexual abstinence included peer perceptions on the sexual behavior, perceived self-esteem to refuse having sex with partners or others, self-esteem and attitudes

toward premarital sex. The factors that influenced condom use consisted of the discussion of HIV/AIDS and condom use with sexual partners and the perceived self-efficacy to use condoms [12]. These social and perceived self-efficacy factors are useful for HIV/AIDS or STIs prevention intervention planning for behavioral change as they already captured group/social norms and context specificity.

Apart from addressing health problems such as child malnutrition problems and HIV/AIDS and unsafe sexual behavior prevention, the positive deviance approach had also been applied to health promotion including breastfeeding practice, physical activity, and weight control programs. The World Health Organization recommends infants to be exclusively breastfed for the first 6 months as breast milk contains all the nutrients that are essential for infants. It is also a cost-effectiveness intervention to reduce infant morbidity and mortality for low- and middle-income countries [32,33]. Using a cluster randomized controlled trial in a community setting in Jimma town, Ethiopia, mothers in the intervention group were provided with a comprehensive and personalized counseling and social support packages at home by trained positive deviants. The package included a best-lived sharing experience on exclusive breastfeeding and caring of a newborn, and psychological support on expectations, beliefs, and myths related to newborn and infant care. After eight months of the intervention, the results suggested an increase in exclusive breastfeeding among mothers in the intervention group by 18.5% whereas only a 0.2% increase was found in the control group. The probability of breastfeeding practices is also higher in the intervention group after a follow-up period [2]. This implies an improvement of breastfeeding practices among mothers from a positive deviance approach.

The positive deviants are defined as persons who behave uncommonly compared to their peers in order to better overcome health risks. It is important to study insight attitudes, motivations, support systems and reliance structures [34]. The study was conducted in high schools in Canada to explore potential factors influencing positive deviant teenagers toward levels of physical activity. The results suggested factors influencing the level of physical activity among positive deviants were the use of recreational time, family influences or support, age, and an increased sense of wellness [35]. Understanding the factors influencing the level of physical activity within positive deviant adolescents has provided information for public health practitioners to create an effective intervention for this unique population and this may be expanded to other inactive groups when adjusting the influencing factors.

Another application of the positive deviance concept to identify factors of successful positive deviant cases in a healthy lifestyle can be seen in a weight control program. An increase in obesity prevalence was seen in many areas. Low-income African American women reported the highest rate of obesity among subgroups in the US. However, when weight loss intervention was applied, this group participated less in the program [36] and even when they joined the intervention, the outcomes were not favorable [37]. The positive deviance approach was then used to identify related factors which can help to promote weight loss among this population group. Positive deviant cases were selected to examine their motivations, opportunity, and adaptability behaviors. Several factors affecting weight loss success among women in the positive deviant group were found, such as health concerns, appearance, quality of life, being a role model for their children, having weight-loss buddies, time allowance, and using creative tricks to maintain their healthy diet behavior [38]. This study provides the example of using positive deviant cases to learn from their successful behavior and develop the health-promoting intervention, particularly for a high-risk group.

6. Application of Positive Deviance Approach to Promote Young Adults' and Adolescents' Health

The positive deviance approach is becoming increasingly popular and is frequently utilized to improve health and developmental outcomes. Positive deviance has been proven to be a successful guide for interventions such as social and behavior change communication, particularly in the areas of child and maternal nutrition, community-

based nutrition, and food security. However, little research in the field of health among adolescents and young adults that used a positive deviance approach were reported. Therefore, a critical review of the data available from existing research is required, as well as the identification of gaps in existing studies for future prospective studies to promote the health of adolescents and young adults employing a positive deviance approach [23]. The positive deviance approach to promote young adults' and adolescents' health has been employed to solve significant behavioral concerns, including academic student retention programs, prevention of early sexual intercourse in highly sexualized adolescents, youth delinquency prevention, and promoting food safety and nutrition. Furthermore, a positive deviance approach has been applied to promote sexual and reproductive health among young people, such as encouraging contraception use, preventing HIV/AIDS, reducing sexual violence, improving young mothers and childcare, and increasing healthy pregnancy outcomes for females adolescents [39].

The previous study used a positive deviance approach to help high school students in the United States improve their knowledge and behaviors related to food safety. This research included students ($n = 218$) from two high schools. The positive deviance method employs teacher-led group discussions in which the teacher encourages and praises actions that adhere to food handling procedure recommendations. Cook, Chill, Clean, Separate, and Choose are the five chapters in the program. It takes 30 min to complete each chapter. Measurements included pre- and post-surveys, pre- and post-observation cooking lessons, take-home assignments, and classroom sessions. The program significantly improved students' food safety knowledge. Positive deviance program enhanced knowledge of high school students and altered their food handling practices when implemented in the classroom. Positive deviance was an alternative method to food safety intervention program. The use of both self-report and observational assessment instruments provided a wealth of information on the curriculum's evaluation. According to the findings, the use of the positive deviance approach has had a considerable impact [13].

Teenage mothers, particularly the youngest, are more likely to have an adverse birth outcome. Applying a positive deviance approach to pregnant teenagers can assist to ease the problem. Positive deviant adolescent characteristics may help to identify high-risk people for focused intervention and potentially modifiable behaviors to improve birth outcomes in all adolescent mothers [14]. Moreover, positive deviance is also being used to minimize the young girls trafficking in East Java, Indonesia. The aim of this program was to reduce girl trafficking in Indonesian rural areas by employing a positive deviance approach. The approach supports three critical processes: social mobilization, knowledge gathering for intervention design, and behavior modification. Positive deviance is a time- and skill-intensive method that also emphasizes communication and relationship practices. These programmatic evaluations revealed largely positive and consistent outcomes, confirming that the approach was a success [16].

Previous research on gender-based violence focused on identifying positive deviants, or nonviolent partners, in order to better understand how respondents viewed the features of nonviolent and violent partnerships. Unmarried and married young females and males (aged 15–24) from the selected villages participated in focus groups to discuss norms related to violence against women and girls, such as physical, sexual, and emotional abuse. The topic of the discussion was on intimate partner and family violence against women, as well as violence committed by others outside the family in the case of the single person. Focus group discussions (FGDs) with young males and young females were used to identify the behavior of nonviolent lovers. Positive deviants, or young males aged 15 to 24, who have never committed violence against their partner, are knowledgeable, smart, understanding, and caring, and have never consumed alcohol, are generally identified as ideal partners by unmarried female adolescents. Positive deviance-based intervention programs are required among young females and males, as well as in academic settings, healthcare centers, and other service providers committed to ending violence against women and girls [40].

In Uganda, positive deviance is being used to encourage females to utilize dual-method contraception. A total of 960 married or unmarried females who used non-barrier methods of modern contraception were recruited. A combination of mobile phone-based and clinic-based counselling, and a one-day teamwork session, was designed based on preliminary qualitative research among females using dual-method contraception. The positive deviance approach enhanced women's use of dual contraceptive methods, which might reduce the occurrence of HIV infections and unwanted pregnancies. This study found that a program directly aimed at females can influence couples' decisions to use dual-method contraception. Females who take non-barrier modern contraception may be easier to reach than males, thus intervention programs focused at these females should be promoted for further study [41].

In Indian tribal communities, positive deviance approach is being used to improve adolescent anemia control program compliance in 434 adolescents. Participatory assessments were completed by female adolescents. The positive deviance methodology consists of five sequential steps that are carried out with the organization or community: (1) specifying the problem, causes, and consequences; (2) identifying positive deviants as individuals or groups; (3) revealing their unexpected but effective behaviors or techniques to prevent or solve the problem; (4) establishing an effective action plan, activities, and guidelines based on the results; and (5) assessing the new positive deviance-informed initiative's development and impact, with an emphasis on behavior and societal change. The program's findings revealed that positive deviants emerge in adolescent girls (26 of 434). Positive deviant females consumed more iron-rich foods, took iron folic acid supplements, and adhered to prescribed personal hygiene practices. During the program, other students were supervised, which was considered a deviant practice in schools [17].

Harmful alcohol consumption continues to be a significant concern among young people. A study on alcohol use was conducted through an Atlantic Canadian university. According to the positive deviance approach, students who are members of the normative group (i.e., those who involve with the normative behavior of drinking) but decide not to comply with the normative expectations of excessive alcohol consumption are the target of this research and are referred to as positive deviants. It is indeed crucial to consider about how a positive deviance approach can support better alcohol consumption behavior. The findings of this study can be applied to improve current methods such as motivational interviewing techniques and alcohol regulations on campuses. The findings will also help with the development of the positive deviance approach to alcohol rehabilitation programs [15].

In addition, positive deviance is being used to help medical students enhance their clinical performance. During clinical rotations in medical school, the students were evaluated twice on their clinical performance. This study employed the positive deviance conceptual model to explore and share the tactics used by successful students to increase team clinical skills. Medical students who performed well in their clinical skills learning techniques were encouraged for in-depth interviews to explore positive deviant behavior. Students who presented novel behaviors were requested to create methods for sharing their learning behavior with their classmates. Students chose to perform in small teams with their classmates, employing the specified positive deviance behaviors to motivate their peers to learn clinical history-taking and physical examination skills. There was a significant difference ($p < 0.05$) between the positive deviance group and the control group in clinical interviewing skills and professional judgment. The implementation of a positive deviance approach can help in the identification of behaviors that contribute to medical students' performance. Through the positive deviant concept, students of the same rank (peers) disseminated their effective performance-enhancing practices to others, leading to improved group performance. Learning practices based on the positive deviance approach can assist students to perform better in groups [42].

Another interesting issue concerns the impact of the COVID-19 pandemic on young adults and adolescents' health. Skok et al. [18] conducted a cross-sectional study in Russian

students during the COVID-19 pandemic; they revealed that vulnerability to negative peer influence was a significant positive associated with healthy deviant behavior ($r = 0.69$; $p < 0.01$). They also found associations between self-esteem and healthy deviant behavior ($r = -0.13$; $p < 0.001$) among Russian students [18]. Kumari and Eguruze [43] also found that positive deviance was associated with a teamwork spirit and emergency help; they also found that positive deviance is one approach to deal with the post-COVID-19 outbreak threat challenges in the foreseeable future. Despite the fact that the positive deviance approach could promote young adults' and adolescents' health, more research studies are needed to conclude the effect of the positive deviance approach on the health outcomes of the studies reviewed, especially during the COVID-19 pandemic.

Although this approach is not necessary to change behaviors, the application of the positive deviance approach remains promising. Perhaps the most essential role may be that of a catalyst, which initiates or accelerates social and behavioral change through processes such as gaining community attention, increasing awareness, addressing problems, persuading others to change their behavior, and actually adopting new behaviors. Therefore, applying positive deviance to new domains among adolescents necessitates a solid understanding of the fundamental conceptual elements. In the future, the approach might become a standard element of successful health and development programming [44].

7. Limitations

There are some limitations to this literature review. First, because this is not a systematic review or meta-analysis due to the heterogeneity of the studies included. Future studies should therefore conduct a systematic review or meta-analysis to identify the effectiveness of the positive deviance approach in healthcare and health promotion to promote young adults' and adolescents' health. For a systematic review or meta-analysis, it is important to follow the Preferred Reporting Items for Systematic Reviews and Meta-Analyses statement (PRISMA) guidelines [45] and standard tools, such as The Quality Assessment Tool for Studies with Diverse Designs (QATSD), and the Mixed Methods Appraisal Tool (MMAT) to assess the methodological quality of each study. Finally, the current review was limited to English and Thai language publications; the standard of eligible articles may differ from others in other languages and cultures. As a result, critical related publications published in other languages are likely to be overlooked. Future studies should expand the scope to cover other languages; the findings might be different. Therefore, multiple searching from grey literature (e.g., theses and dissertations) is needed.

8. Conclusions and Recommendations

The positive deviance approach is essential for young people in order to promote young adults' and adolescents' health. On the basis of our findings, positive deviance could be a potential behavior change tool to be adopted for health risk prevention and to improve good health behaviors. This review also revealed that positive deviance interventions could be effective in various settings to solve significant behavioral concerns, such as academic student retention programs, prevention of early sexual intercourse in highly sexualized adolescents, youth delinquency prevention, and promoting food safety and nutrition. Therefore, the application of the positive deviance approach is still promising. At the same time, this method is not required to change behavior. Although, this strategy is not required to effect behavior change. The role of a catalyst, which involves initiating or accelerating social and behavioral change through processes such as gaining the attention of the community, increasing awareness, addressing problems, convincing others to change their behavior, and adopting new behaviors, is perhaps the most important role. Consequently, in order to apply the concept of positive deviance to new fields involving young people, one needs to have a solid understanding of the fundamental conceptual components. It is possible that the approach could become a required component of effective health and the development of appropriate interventions for young people in order to improve health behaviors and outcomes.

Author Contributions: Conceptualization, C.S., P.P. and S.S.; methodology, C.S.; writing—original draft preparation, C.S., P.P. and S.S.; writing—review and editing, C.S. and W.S. All authors have read and agreed to the published version of the manuscript.

Funding: This research received no external funding.

Institutional Review Board Statement: Not applicable.

Informed Consent Statement: Not applicable.

Data Availability Statement: Not applicable.

Acknowledgments: This study was partially funded for publication by Faculty of Public Health, Mahidol University, Bangkok, Thailand.

Conflicts of Interest: The authors declare no conflict of interest.

References

- Shafique, M.; Mukhtar, M.; Areesantichai, C.; Perngparn, U. Effectiveness of positive deviance, an asset-based behavior change approach, to improve knowledge, attitudes, and practices regarding dengue in low-income communities (slums) of Islamabad, Pakistan: A mixed-method study. *Insects* **2022**, *13*, 71. [CrossRef] [PubMed]
- Siraneh, Y.; Woldie, M.; Birhanu, Z. Effectiveness of positive deviance approach to promote exclusive breastfeeding practice: A cluster randomized controlled trial. *Risk Manag. Healthc. Policy* **2021**, *14*, 3483–3503. [CrossRef] [PubMed]
- Schooley, J.; Morales, L. Learning from the community to improve maternal–child health and nutrition: The positive deviance/hearth approach. *J. Midwifery Women's Health* **2007**, *52*, 376–383. [CrossRef] [PubMed]
- Bolles, K.; Speraw, C.; Berggren, G.; Lafontant, J.G. Ti Foyer (hearth) community-based nutrition activities informed by the positive deviance approach in Leogane, Haiti: A programmatic description. *Food Nutr. Bull.* **2002**, *23*, 9–15. [CrossRef]
- Mackintosh, U.A.T.; Marsh, D.R.; Schroeder, D.G. Sustained positive deviant child care practices and their effects on child growth in Viet Nam. *Food Nutr. Bull.* **2002**, *23*, 16–25. [CrossRef]
- D'Alimonte, M.R.; Deshmukh, D.; Jayaraman, A.; Chanani, S.; Humphries, D.L. Using positive deviance to understand the uptake of optimal infant and young child feeding practices by mothers in an Urban Slum of Mumbai. *Matern. Child Health J.* **2016**, *20*, 1133–1142. [CrossRef]
- Suldo, S.M.; Gormley, M.J.; DuPaul, G.J.; Anderson-Butcher, D. The Impact of School Mental Health on Student and School-Level Academic Outcomes: Current Status of the Research and Future Directions. *Sch. Ment. Health* **2014**, *6*, 84–98. [CrossRef]
- Durlak, J.A.; Weissberg, R.P.; Dymnicki, A.B.; Taylor, R.D.; Schellinger, K.B. The Impact of Enhancing Students' Social and Emotional Learning: A Meta-Analysis of School-Based Universal Interventions. *Child Dev.* **2011**, *82*, 405–432. [CrossRef]
- García-Carrión, R.; Villarejo-Carballido, B.; Villardón-Gallego, L. Children and Adolescents Mental Health: A Systematic Review of Interaction-Based Interventions in Schools and Communities. *Front. Psychol.* **2019**, *10*, 918. [CrossRef] [PubMed]
- Choompunuch, B.; Suksatan, W.; Sonsroem, J.; Kutawan, S.; In-udom, A. Stress, adversity quotient, and health behaviors of undergraduate students in a Thai university during COVID-19 outbreak. *Belitung Nurs. J.* **2021**, *7*, 1–7. [CrossRef]
- Sarnkhaowkhom, C.; Suwathanpornkul, I. Experiences and perspectives about health literacy interventions among health science students: A meta-aggregation approach. *J. Behav. Sci.* **2021**, *16*, 1–15.
- Babalola, S.; Awasum, D.; Quenum-Renaud, B. The correlates of safe sex practices among Rwandan youth: A positive deviance approach. *Afr. J. AIDS Res.* **2002**, *1*, 11–21. [CrossRef] [PubMed]
- Feng, Y.; Bruhn, C.M.; Elder, G.; Boyden, D. Assessment of knowledge and behavior change of a high school positive deviance food safety curriculum. *J. Food Sci. Educ.* **2019**, *18*, 45–51. [CrossRef]
- Wallace, M.E.; Harville, E.W. Predictors of healthy birth outcome in adolescents: A positive deviance approach. *J. Pediatr. Adolesc. Gynecol.* **2012**, *25*, 314–321. [CrossRef]
- Tucker, M.; Harris, G.E. Alcohol use among university students: Considering a positive deviance approach. *J. Health Psychol.* **2015**, *21*, 1918–1927. [CrossRef]
- Durá, L.; Singhal, A. Utilizing a positive deviance approach to reduce girls' trafficking in Indonesia: Asset-based communicative acts that make a difference. *J. Creat. Commun.* **2009**, *4*, 1–17. [CrossRef]
- Sethi, V.; Sternin, M.; Sharma, D.; Bhanot, A.; Mebrahtu, S. Applying positive deviance for improving compliance to adolescent anemia control program in tribal communities of India. *Food Nutr. Bull.* **2017**, *38*, 447–452. [CrossRef]
- Skok, N.; Fomichev, I.; Zinenkova, A. Adolescents' Health Deviant Behavior in Modern Society. *Health Educ. Health Promot.* **2021**, *9*, 343–349.
- Cambridge University Press. Cambridge Dictionary. Available online: <https://dictionary.cambridge.org/dictionary/english/> (accessed on 1 May 2022).
- Oxford University Press. The Oxford Advanced Learner's Dictionary Online. Available online: <https://www.oxfordlearnersdictionaries.com/> (accessed on 1 May 2022).
- The Positive Deviance Initiative. Basic Field Guide to the Positive Deviance Approach. Available online: https://www.positivedeviance.org/resources/manuals_basicguide.html (accessed on 1 May 2022).

22. Singhal, A.; Dura, L. Positive Deviance: A Non-Normative Approach to Health and Risk Messaging. Available online: <https://oxfordre.com/communication/view/10.1093/acrefore/9780190228613.001.0001/acrefore-9780190228613-e-248> (accessed on 10 May 2022).
23. Marsh, D.R.; Schroeder, D.G. The positive deviance approach to improve health outcomes: Experience and evidence from the Field—Preface. *Food Nutr. Bull.* **2002**, *23*, 3–6. [\[CrossRef\]](#)
24. Bradley, E.H.; Curry, L.A.; Ramanadhan, S.; Rowe, L.; Nembhard, I.M.; Krumholz, H.M. Research in action: Using positive deviance to improve quality of health care. *Implement. Sci.* **2009**, *4*, 25. [\[CrossRef\]](#)
25. Baxter, R.; Taylor, N.; Kellar, I.; Lawton, R. What methods are used to apply positive deviance within healthcare organisations? A systematic review. *BMJ Qual. Saf.* **2016**, *25*, 190. [\[CrossRef\]](#) [\[PubMed\]](#)
26. Lawton, R.; Taylor, N.; Clay-Williams, R.; Braithwaite, J. Positive deviance: A different approach to achieving patient safety. *BMJ Qual. Saf.* **2014**, *23*, 880. [\[CrossRef\]](#) [\[PubMed\]](#)
27. Marsh, D.R.; Schroeder, D.G.; Dearden, K.A.; Sternin, J.; Sternin, M. The power of positive deviance. *BMJ* **2004**, *329*, 1177. [\[CrossRef\]](#) [\[PubMed\]](#)
28. Fowles, E.R. Collaborative methodologies for advancing the health of underserved women. *Fam. Community Health* **2007**, *30*, S53–S63. [\[CrossRef\]](#)
29. Green, J.; Tones, K. *Health Promotion: Planning and Strategies*, 2nd ed.; SAGE: Los Angeles, CA, USA, 2010.
30. Hallett, T.B.; White, P.J.; Garnett, G.P. Appropriate evaluation of HIV prevention interventions: From experiment to full-scale implementation. *Sex. Transm. Infect.* **2007**, *83*, i55. [\[CrossRef\]](#)
31. Ober, A.J.; Dangerfield, D.T.; Shoptaw, S.; Ryan, G.; Stucky, B.; Friedman, S.R. Using a “positive deviance” framework to discover adaptive risk reduction behaviors among high-risk hiv negative black men who have sex with men. *AIDS Behav.* **2018**, *22*, 1699–1712. [\[CrossRef\]](#)
32. World Health Organization. Infant and Young Child Feeding. Available online: <https://www.who.int/news-room/fact-sheets/detail/infant-and-young-child-feeding> (accessed on 8 May 2022).
33. Khan, J.; Vesel, L.; Bahl, R.; Martinez, J.C. Timing of breastfeeding initiation and exclusivity of breastfeeding during the first month of life: Effects on neonatal mortality and morbidity—A systematic review and meta-analysis. *Matern. Child Health J.* **2015**, *19*, 468–479. [\[CrossRef\]](#)
34. Spreitzer, G.M.; Sonenshein, S. Toward the construct definition of positive deviance. *Am. Behav. Sci.* **2004**, *47*, 828–847. [\[CrossRef\]](#)
35. Spurr, S.; Bally, J.; Trinder, K. Predictors of physical activity in positive deviant adolescents. *J. Pediatr. Nurs.* **2016**, *31*, 311–318. [\[CrossRef\]](#)
36. Klem, M.L.; Wing, R.R.; McGuire, M.T.; Seagle, H.M.; Hill, J.O. A descriptive study of individuals successful at long-term maintenance of substantial weight loss. *Am. J. Clin. Nutr.* **1997**, *66*, 239–246. [\[CrossRef\]](#)
37. Fitzgibbon, M.L.; Tussing-Humphreys, L.M.; Porter, J.S.; Martin, I.K.; Odoms-Young, A.; Sharp, L.K. Weight loss and African–American women: A systematic review of the behavioural weight loss intervention literature. *Obes. Rev.* **2012**, *13*, 193–213. [\[CrossRef\]](#) [\[PubMed\]](#)
38. Banerjee, E.S.; Herring, S.J.; Hurley, K.; Puskarz, K.; Yebernetsky, K.; LaNoue, M. Determinants of successful weight loss in low-income African American women: A Positive deviance analysis. *J. Prim. Care Community Health* **2018**, *9*, 2150132718792136. [\[CrossRef\]](#) [\[PubMed\]](#)
39. Van Dick, G.; Scheffel, R.; Positive Deviance. A Literature Review about the Relevance for Health Promotion. Available online: <https://hdl.handle.net/1956/9282> (accessed on 1 May 2022).
40. Jejeebhoy, S.J.; Santhya, K.; Sabarwal, S. *Gender-Based Violence: A Qualitative Exploration of Norms, Experiences and Positive Deviance*; Population Council: New Delhi, India, 2013.
41. Kosugi, H.; Shibamura, A.; Kiriya, J.; Ong, K.I.C.; Mucunguzi, S.; Muzoora, C.; Jimba, M. Positive deviance for promoting dual-method contraceptive use among women in Uganda: A cluster randomised controlled trial. *BMJ Open* **2021**, *11*, e046536. [\[CrossRef\]](#) [\[PubMed\]](#)
42. Zaidi, Z.; Jaffery, T.; Shahid, A.; Moin, S.; Gilani, A.; Burdick, W. Change in action: Using positive deviance to improve student clinical performance. *Adv. Health Sci. Educ.* **2012**, *17*, 95–105. [\[CrossRef\]](#) [\[PubMed\]](#)
43. Kumari, G.; Eguruze, E.S. Positive Deviance Traits and Social Entrepreneurship for Women Empowerment Amid COVID-19. *IIM Kozhikode Soc. Manag. Rev.* **2021**, *11*, 109–125. [\[CrossRef\]](#)
44. Lapping, K.; Marsh, D.R.; Rosenbaum, J.; Swedberg, E.; Sternin, J.; Sternin, M.; Schroeder, D.G. The positive deviance approach: Challenges and opportunities for the future. *Food Nutr. Bull.* **2002**, *23*, 128–135. [\[CrossRef\]](#)
45. Page, M.J.; McKenzie, J.E.; Bossuyt, P.M.; Boutron, I.; Hoffmann, T.C.; Mulrow, C.D.; Shamseer, L.; Tetzlaff, J.M.; Akl, E.A.; Brennan, S.E.; et al. The PRISMA 2020 statement: An updated guideline for reporting systematic reviews. *Syst. Rev.* **2021**, *10*, 89. [\[CrossRef\]](#)