The Importance of Preventive Measures to Reduce the Incidence of Postpartum Depression in Unintended Pregnancies: A Narrative Review

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Abstract: Unintended pregnancies and associated emotional issues can negatively affect expectant mothers, potentially harming both them and their babies. This study focuses on the significance of forgiveness as an intervention for healing emotional wounds, enhancing self-acceptance, and improving overall well-being and relationships among mothers. It assesses forgiveness's impact on the physical, psychological, social, and spiritual health of mothers throughout their lives, bolstering their resilience. A narrative review of evidence on forgiveness in the context of unwanted teenage pregnancies was conducted from January 2016 to January 2019, including PubMed, EMBASE and Cochrane, EBSCO, PubMed, UpToDate, and Clinical Key. Out of 995 studies, 14 articles were selected, primarily emphasizing forgiveness therapy for adolescent bullying and social issues. Although research on forgiveness in unwanted pregnancies was limited and had methodological limitations, early interventions are crucial to safeguard pregnant women's physical and mental health during pregnancy, childbirth, and the postpartum period. Further research with improved methodology is needed to comprehensively understand forgiveness's impact and enhance support for pregnant women.

Keywords: Empowerment; Forgiveness; Quality of life of pregnant women; Unwanted pregnancy.

Introduction

In Sub-Saharan African (SSA) countries, 30-40% of teenage girls have become moms before the age of 18, or one in every five girls has given birth as a teenager each year, and as a result, most women may have numerous children by the age of 20. Teenagers aged 19 years have a 13 times higher risk of experiencing a first pregnancy compared to those aged 15 years. At the time of the most recent Demographic and Health Surveys (DHS), about 27 and 25% of adolescent girls aged 15 to 19 in Tanzania and Uganda, respectively, were pregnant or had their first child. (Ahinkorah, Kang, Perry, Brooks, & Hayen, 2021; Wado, Sully, & Mumah, 2019)

Adolescent females, between the ages of 15 and 19, are often at high risk of pregnancy for both the mother and the fetus. This can result in intergenerational cycles of poverty, inadequate education, and unemployment. Age, occupation, marital status, degree of education, early sexual beginning, contraceptive knowledge, unmet need for contraception, and wealth quintile are all connected with first adolescent pregnancy in SSA (Ahinkorah et al., 2021; Ayalew et al., 2022).
The psychological, biological, social, and spiritual impacts of an unplanned pregnancy (UP) can include negative emotions which can affect self-acceptance. Self-acceptance in an UP is very important to be free from negative emotional confinement, and encouraging and changing attitudes towards others will therefore change the situation to be positive to set new life goals (Priadi & Gurmichele, 2019).

Negative emotions caused by a lack of acceptance of an UP or problems that arise during pregnancy will have an impact on an individual's sympathetic nervous system, resulting in such physical impacts as palpitations, gastric disorders, or muscle disorders, which is why parasympathetic balance is important (Priadi & Gurmichele, 2019). It is the parasympathetic balance that will suppress the volatility of behavioral reactions due to negative emotional stress that arises during pregnancy which will have an impact on metabolic and circulation disorders as a whole, and in the long term, this essential balance will eventually have an impact on the growth of the baby's sacral nerves from the behavior of the mother.

The importance of interventions to forgive in UP involves various components that will reduce negative impacts during pregnancy and childbirth or on both the mother and baby; thus, the therapy can focus on psychosocial risk factors and their prevention (Priadi & Gurmichele, 2019). With such therapy, pregnant women will focus on the balance of the parasympathetic nerves whose impacts include calming and relieving sympathetic nervous pressure, thereby suppressing behavioral maladaptation caused by negative emotional pressure.

**Method**

**Search strategy**

Selected publications published between 2004 and 2020 were retrieved from electronic databases such as PubMed, EMBASE and Cochrane, EBSCO, UpToDate, and ClinicalKey using the following search terms: Unwanted Pregnancy, Unplanned Pregnancy, Physical, Psychic, Social, and Spiritual Benefits and Effects with Literature Limited to English. All of the search results were then exported to Mendeley's reference management software. The selection of research results was done using the Guide for Preferred Reporting Items for Systematic Review and Meta-Analysis (PRISMA). The search results according to the complete PRISMA Guidelines are presented in Figure 1.

**Inclusion and exclusion criteria**

This review looked for research publications that discussed a) teenage or adult patients who were pregnant, b) patients who had apology therapy for some adult disorders, c) the benefits of therapy to improve one's quality of life, and d) articles written in English. All of the articles were evaluated critically based on the research approach used.

**Study selection**

The search results were sorted after removing any duplicate citations, which was done by reading the title and abstract and selecting the full-text articles according to the eligibility criteria. An article was considered eligible if the article discussed the effectiveness of forgiveness therapy for cases of illness or social problems. This review covered all study levels from level I to level V starting from case-control designs, and cohort studies, to prospective studies and randomized controlled trials, with bibliographical sources of
evidence from the Oxford Center for Evidence-Based Medicine (CEBM).

**Data extraction**

The data extraction in this literature review contains a list of the studies included in the review on the importance of forgiveness therapy in mothers, adolescents, or adults with psychological problems due to trauma or other social pressures. The study-related information in this review included the first author, year, country, title, objective, study design, and findings.

**Result and Discussion**

Based on Figure 1, 995 of these studies were screened with 901 complete and 94 incomplete articles. For this review, the 981 studies that did not meet the requirements were reduced to 14 fully qualified articles that focused on the importance of forgiveness therapy for adolescent bullying and social problems in society. Table 1 provides a synthesis of the 14 studies including a breakdown of some of the available and related variables. Most of the studies (35.7% (n = 5)) used a systematic review, followed by 21.4% (n = 3) with an observation group, 21.4% (n = 3) with retrospective cohorts, and 21.4% (n = 3) with an experimental design. The majority (n = 4, 28.5%) were conducted in the UK, and the rest were in the USA (n = 3, 21.4%), Indonesia (n = 3, 21.4%), Thailand (n = 1, 7.1%), India (n = 1, 7.1%), Turkey (n = 1, 7.1%), and Italy (n = 1, 7.1%).

The results shown were all obtained from the studies that met the requirements for multiple maternal inclusion requirements and the effects of forgiveness therapy on mental well-being and mental states of humans included in the index of pregnant women regardless of the study design. This review provided some evidence of the importance of remission therapy in UP (unwanted pregnancies). The results of forgiveness therapy can reduce anxiety, feelings of sadness, depression, and not accepting circumstances. The use of apology therapy for fetal growth and development, benefits for the physical, psychosocial, and spiritual conditions of pregnant women, the welfare of the couple and the fetus, and the optimal life of the mother were also reviewed in this study.

**Table 1. Study characteristics of the included 14 full-text articles**

<table>
<thead>
<tr>
<th>Authors</th>
<th>Study country</th>
<th>Study design</th>
<th>Number and characteristic of study participants</th>
<th>Key findings</th>
<th>Confounders adjusted in multivariable analysis</th>
<th>Significant confounders</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sattarzadeh et al. (Mokhlesi, Simbar, Tehrani, Kariman, &amp; Majd, 2019)</td>
<td>USA</td>
<td>This investigation was carried out by scanning several databases for publications published between 2000 and 2018</td>
<td>176 articles</td>
<td>Young women are victims of violence throughout their most active years of life and are vulnerable in society due to health, economic, cultural, and social concerns. Given its prevalence, underage marriage can be avoided by raising public awareness and enlisting the help of relevant organizations.</td>
<td>Health, economic, cultural and social issues.</td>
<td>Increasing public awareness and the cooperation of related organizations</td>
</tr>
<tr>
<td>Siriphadung, Sakesun (2019)</td>
<td>Thailand</td>
<td>Through path analysis, this study examined familial religious socialization in connection to teenagers’ risk-taking behavior.</td>
<td>3,795 pairs of parents and adolescent(s)</td>
<td>The religious practices of parents are important as they operate through adolescents’ own religious adherence and their self-control/guidance system, as a mechanism to protect against adolescent risk-taking.</td>
<td>Parental Socio-Demographic, Parental Mindful Self-Conduct</td>
<td>Parental Mindful Self-Conduct</td>
</tr>
<tr>
<td>Ermiati E et al. (2022)</td>
<td>Indonesia</td>
<td>The method used in the literature is a</td>
<td>2051 articles, then adjusted to the</td>
<td>the impact of unwanted pregnancy on pregnancy care in support from families, health</td>
<td>Adolescents, who experience</td>
<td></td>
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<tr>
<td>Widiasih, &amp; Mediani, 2022</td>
<td>narrative review using the Preferred Reporting Items for Systematic Review (PRISMA). The data used are secondary data taken from scientific articles 2011 to 2021. Inclusion and exclusion criteria for screening to 710 articles, then the articles were screened based on titles and abstracts that matched the literature theme, the results were six articles. Adolescents will have an impact on both physical and psychological problems workers, and the community unwanted pregnancy, tend not to do ANC, behave in harming to themselves and their fetus.</td>
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<tr>
<td>Chamberlain et al. (2019) (Chamberlain et al., 2019)</td>
<td>This study was based on screened articles for inclusion and extracted data. Data were synthesized using grounded theory and thematic analysis approaches. Pregnancy, birth, and the early postpartum period provide a once-in-a-lifetime healing chance for parents who have experienced mistreatment. Understanding parent’s experiences and views of perinatal care and early parenting is critical for informing the development of acceptable and effective support strategies.</td>
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<tr>
<td>Kurniati et al. (2020) (Kurniati, Worthington, Widyarini, Citra, &amp; Dwiiwardani, 2020)</td>
<td>His study compared immediate treatment (IT) and waiting list (WL) conditions in a 2x3(S) quasi-experimental repeated-measures design. Parents’ experiences and views of perinatal care and early parenting were discussed. Effective support strategies.</td>
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<td>Praptomojati et al. (2020) (Praptomojati &amp; Subandi, 2020)</td>
<td>A quasi-experimental method was used, with measures taken three times (before, after, and one week after the intervention). Forgiveness therapy could increase the self-acceptance of the inmates. The researcher anticipated that forgiveness therapy will be used as the foundation for treatment and the creation of mental lack of meaningful activities and insecurity about future prospects isolation from social networks.</td>
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<tr>
<td>Author(s)</td>
<td>Country</td>
<td>Method</td>
<td>Participants</td>
<td>Key Findings</td>
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<tr>
<td>Toktas, Sermet (2019) (Toktas, 2019)</td>
<td>Turkey</td>
<td>This study was conducted with the relational screening model</td>
<td>During the 2017-2018 academic year, 479 university students studied at Kahramanmaraş, Gaziantep, Burdur, Denizli, and Mersin.</td>
<td>The highest average point of forgiveness belonged to the students of the coaching department.</td>
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<tr>
<td>Dahiya et al. (2019) (Dahiya &amp; Rangnekar, 2019)</td>
<td>India</td>
<td>The cohort retrospective technique was used for this investigation.</td>
<td>There were 376 employees working in various Indian manufacturing organizations.</td>
<td>The study shows that forgiveness significantly reduces the NA on employees and hence, organizations should make positive interventions in order to encourage forgiveness at work.</td>
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<tr>
<td>Quintana-Ort, et al. (2019) (Quintana-Orts, Rey, &amp; Worthington, 2019)</td>
<td>USA</td>
<td>This study was conducted with systematic searches in PsycINFO, MEDLINE, PsycArticles, and Scopus databases.</td>
<td>There were 637 non-duplicated studies out of a total of 1,093 studies, and 18 were subsequently included.</td>
<td>Adolescents with higher forgiveness levels bully less and adolescents with higher forgiveness show less victimization.</td>
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<tr>
<td>Clabby et al. (2019) (Clabby, 2020)</td>
<td>UK</td>
<td>This study was conducted with a cohort observational method.</td>
<td>435 young adults</td>
<td>Divine forgiveness also mediated the connection between self-forgiveness and psychological distress, with lower but not larger levels of self-forgiveness associated with less depressive symptoms.</td>
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<tr>
<td>Toussaint, et al. (2020) (Toussaint, Gall, Cheadle, &amp; Williams, 2020)</td>
<td>UK</td>
<td>This study was conducted with a cohort observational method.</td>
<td>1,423 United States adults.</td>
<td>Forgiveness of others and self-forgiveness may reduce feelings such as anger, regret, and rumination and provide a buffer between one’s own and others’ transgressions that occur during the day, as well as provide a tranquil mental state that promotes sound immune system and improved learning and memory.</td>
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</tbody>
</table>
Overall, young women are vulnerable to becoming victims of violence in their active lives, and violence triggers health, economic, social, and cultural problems. Building cooperation and awareness at the organizational level and in the community can reduce the number of teenage marriages. There is a high-risk phenomenon of domestic violence, mental health disorders, and high-risk pregnancy in teenage marriage. Women with a history of violence will be at risk during pregnancy and childbirth. The importance of preventing domestic violence can be emphasized for at-risk groups. In addition, women who experience violence sometimes do not attend treatment and may not even report acts of harassment. Even if they have signs of abuse and/or violence, they rarely report sexual violence or other forms of harassment. Therefore, women who experience violence must be identified and intervened with forgiveness therapy to practice positive thinking and coping or to activate parasympathetic nerves to reduce disappointment, thereby enabling them to think rationally (Mokhlesi et al., 2019; Sezgin & Punamäki, 2020).

**Risks of violence in teen marriage**

The long-term health effects of abuse are a significant public health concern. Abuse in early childhood, whether single, repeating, or multigenerational, causes long-term trauma to the individual's well-being and health, resulting to physical, psychological, social, and emotional consequences and even adversely affecting one's emotional life. Organizations working in the field of disease prevention and violence control stated that child abuse is behavior that presents a potential danger or is in the form of threats, statements, or words with open actions resulting in sleep, which is related with greater health. Forgiveness mediates the relationship between coping and well-being and so may function as a protective mechanism within the context of couple stress.

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**Table:**

<table>
<thead>
<tr>
<th>Study</th>
<th>Country</th>
<th>Methodology</th>
<th>Summary</th>
<th>Countries</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gall et al. (2020)</td>
<td>UK</td>
<td>Conducted with a cohort retrospective method</td>
<td>An online survey of 116 persons was conducted to assess forgiveness, general, spiritual, and interpersonal coping, and well-being.</td>
<td>Acceptance, positive refocusing and reappraisal, planning, putting the situation into perspective, and conflict resolution.</td>
</tr>
<tr>
<td>Wulandari et al. (2019)</td>
<td>Indonesia</td>
<td>Conducted with research journals published between 2013 and 2018 as the criteria of the article.</td>
<td>The journals containing the papers must be published between 2013 and 2018.</td>
<td>self-control, age, and gender.</td>
</tr>
<tr>
<td>Barcaccia et al. (2019)</td>
<td>Italia</td>
<td>Conducted with a cohort observational method</td>
<td>The study was conducted to assess forgiveness, general, spiritual, and interpersonal coping, and well-being.</td>
<td>Gender and Age, Experiences</td>
</tr>
</tbody>
</table>

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**Correction of the ill effects of childhood: sexual abuse**

The long-term health effects of abuse are a significant public health concern. Abuse in early childhood, whether single, repeating, or multigenerational, causes long-term trauma to the individual's well-being and health, resulting to physical, psychological, social, and emotional consequences and even adversely affecting one's emotional life. Organizations working in the field of disease prevention and violence control stated that child abuse is behavior that presents a potential danger or is in the form of threats, statements, or words with open actions resulting in sleep, which is related with greater health. Forgiveness mediates the relationship between coping and well-being and so may function as a protective mechanism within the context of couple stress.
in acts of physical, sexual, or psychological abuse. Abuse of children, especially psychological abuse, is linked to a number of detrimental long-term effects on development and health that continue throughout adolescence and early adulthood (M. A. da Cruz et al., 2021; Strathearn et al., 2020). Experience of child abuse, or often called Adverse Childhood Experiences (ACE), can involve violence and abuse during childhood or can be in the form of global emotional neglect, a dysfunction that occurs in the household, or in the form of physical neglect (Schulte, Bach, Berkowitz, Latner, & Pearl, 2021).

Often harassment is done by the caregiver of the closest person, resulting in a loss of security for the child, and this abuse will have consequences for the growth and development in the form of physical or psychological stress reactions or emotional dysregulation, biological, and cognitive dysfunctions (Arslan & Engin, 2022; Henkhaus, 2022). Unresolved history of childhood trauma can have negative physical and psychological consequences, such as cognitive disability, anxiety and depression, psychosis, teen-aged pregnancy, addiction disorders, obesity, and cardiovascular disease (Strathearn et al., 2020; Zhang et al., 2021). Forgiveness therapy can provide opportunities for children with a history of sympathetic and parasympathetic imbalances, and in adulthood and pregnancy, coping mechanisms such as the stages of forgiveness therapy can be established, leading to body balance or homeostasis and avoiding diseases of vital organs.

Healing the past by improving the quality of life in the future

Physical, social, and emotional development and well-being can be significantly disrupted by bad parenting (Wang, 2022). Long-term toxic relationships can impair children's capacities, potentially resulting in "intergenerational trauma." The transition to loving parenthood throughout pregnancy, labor, and the early postpartum period, on the other hand, provides life opportunities and has the potential to be a cure. Children with a history of abuse need lifelong healing opportunities provided to initiate a comfortable environment physically, psychologically, socially, and spiritually during pregnancy, childbirth, and the puerperium (Chamberlain et al., 2019).

Pregnancy, childbirth, and postpartum periods that are physically, psychologically, socially, and spiritually healthy are lifelong healing opportunities for children who have experienced violence. Therefore, information about support strategies and effective parenting for parents must be provided to support effective care and parenting during the perinatal period (Chamberlain et al., 2019; Ong, Ong, Ang, Vehviläinen-Julkunen, & He, 2023). With forgiveness therapy, there will be a balance of sympathetic and parasympathetic nerves, and this can lead to parental affection for the child and examples of how to deal with inappropriate emotions, so the child's sacral nerve will develop well. Processes of self-regulation affect the probability of forgiveness in interpersonal situations (Ho, Van Tongeren, & You, 2020).

Forgiveness: move on is healthy

Forgiveness is the primary preventive intervention for doctors and nurses to facilitate their services. Forgiving will generate respect, love, and generosity for those who practice it. Injured individuals do not put themselves in danger since forgiving can stop and avoid revenge actions of the injured person. Forgiveness means that individuals who still imagine past wounds without continuing to think about negative emotions can let go of hatred or unfair treatment. This learning to forgive and move forward is an effective and healing approach (Clabby, 2020).

Some individuals who fail to forgive will experience symptoms of depression (Jung et al., 2019). The four domains of quality of life were assessed as good and significant in patients with cancer who underwent forgiveness therapy for four weeks, and such an approach could reduce anger. Therefore, the practice of forgiveness therapy can be a nurturing approach to development. Besides, the results of a study showed that the influence of the four domains is quite large (Clabby, 2020).

The REACH (Recall the hurt, Empathize, Altruistic gift of forgiveness, Commit to the forgiveness experience, Hold on to the forgiveness experience, forgiveness collectivistic) provides concrete evidence that such a method can help individuals learn to forgive what they feel in the form of hurt, so they foster empathy and will experience forgiveness and then commit to forgive. Therefore, it is also important that they forgive themselves because overcoming disturbing negative emotions can be beneficial to health (Clabby, 2020; Long, Worthington, VanderWeele, & Chen, 2020).

Forgiveness therapy influence on emotions and decisions to forgive

Forgiveness is defined as the process of recognizing an offender's faults and attempting to repair one's emotional wounds while also developing new relationships in the future (Wulandari & Megawati, 2020). A meta-analysis of forgiveness interventions suggested that forgiveness can help an individual deal with various types of psychological problems (Sandage, Crabtree, & Bell, 2019). Forgiveness emphasizes two topics, namely emotional responses and the decision to forgive, which is a form of desire to avoid revenge, a violation done by an individual with dignity (Kurniati et
An individual can decide to forgive the person who hurt him/her but still experience negative emotions. The negative emotions that cannot be neutralized can be replaced with positive emotions, and if they are still oriented towards other people's mistakes, then they have not emotionally forgiven (Brémault-Phillips, Cherwick, Smith-MacDonald, Huh, & Vermetten, 2022; Kurniati et al., 2020).

Forgiveness can increase self-acceptance and understanding of self-worth. This is a mechanism to improve individual well-being. Individuals who no longer feel pain can accept and grow new insights and creativity if they have already forgiven the negative emotions that they felt before. They can accept unconditionally and think rationally although it is not easy to give up the unpleasant situations, with time finding a way out of the problem at hand is a sign that the individuals have made peace with themselves and others and the circumstances they are facing. As a result, the individuals have a strong mentality when facing life's trials using a new perspective (Praptomojati & Subandi, 2020).

**High self-acceptance in individuals who have forgiven**

This approach provides a positive effect as it can reduce the levels of anxiety, depression, and stress, indicating effective forgiveness interventions, according to the results of a meta-analysis study. Empirical evidence indicated that such a process can result in optimism, mental health, positive thinking and achievement of life satisfaction as a result of the forgiveness of the negative emotions experienced. In addition, forgiveness helps physically ill individuals to reduce their anger and psychological distress (Kim, Payne, & Tracy, 2022).

Qualitative results revealed that individuals show more positive changes after attending therapy in which physical complaints are reduced, and negative emotions become positive. Individuals can perceive themselves positively and have a better ability to respect themselves and others by fostering behavior to be able to face such conditions (Praptomojati & Subandi, 2020).

**Effects of forgiveness on work and negative effects at work**

Disputes and various arguments for personal revenge or strong disputes have the potential to affect employees and the workplace in general. In this case, an alternative is needed, such as forgiveness therapy, to organize and resolve disputes and conflicts in organizations. Forgiveness is a coping mechanism that focuses on emotions and can help reduce the negative impact of conflicts with fellow workers on employees. Forgiveness is a constructive attitude in emotions, beliefs, and activities related to oneself (Dahiya & Rangnekar, 2019).

As the self-forgiveness model emphasizes, failures, mistakes, stress, and coping with stress at work can harm psychological well-being as well as the organization in which the individual works (Toussaint, 2022). This situation can also be experienced by women with UP who tend to come into conflict with family members (Dahiya & Rangnekar, 2019).

The negative impact on the work situation requires mutual forgiveness, so it will be important to foster a situation of mutual understanding of conflicts and to analyze each other's work situations (Dahiya & Rangnekar, 2019). There are long-term impacts on employees' way of thinking if there is a situation that emotionally burdens them (Kent, Bradshaw, & Uecker, 2018). Forgiveness is used as not only therapy but also an early intervention program, involving coaching and mutual acceptance in the workplace to help reduce the negative effects on employees. Therefore, adopting the forgiveness dimension can be a good substitute for stress management in the workplace.(Dahiya & Rangnekar, 2019; Witvliet, Root Luna, Worthington, & Tsang, 2020)

**Effects of forgiveness therapy on bullying and cyberbullying in adolescents**

Bullying and cyberbullying have a negative consequence for physical and mental health (Méndez, Jorquera, Ruiz-Esteban, Martínez-Ramón, & Fernández-Sogorb, 2019). To handle bullying and cyberbullying, forgiveness techniques can be used (Eroglu, Peker, & Cengiz, 2022). The high negative emotional stress reactions and resentment can also be overcome. Learning to forgive can be used as a strength building and mechanism to help children and adolescents think more positively in dealing with conflicts to create a better culture. To help an individual quickly adjust emotions, manage feelings, and suppress social conflicts and maladaptive behavior, it is highly important to intervene with forgiveness. Increasing the ability to manage emotions will reduce the nature of aggression in victims of bullying in children and adolescents, making it important to build the resilience of forgiveness for each individual.(Quintana-Orts et al., 2019)

**A positive relationship between forgiveness therapy and rest quality and health**

One of the causes of lack of sleep is stress. Forgiveness therapy helps build understanding and coping (Toussaint, Gall, et al., 2020). Forgiving others and oneself has an important role as a coping mechanism that can help individuals deal with "past regrets and violations". Mental and physical health, less pain, and better immunity are signs that an individual has forgiven oneself and others (Toussaint, Worthington, et al., 2020). Stressful conditions will also
increase cardiovascular response. Forgiving others and oneself can have a significant correlation with an individual’s health and sleep quality. Forgiving others and oneself can reduce emotions including negative reflections. Forgiveness allows an individual to be mentally calm, resulting in a deep sleep and better health (Toussaint, Gall, et al., 2020).

Role of forgiveness as a coping response to married couples
Forgiveness indicators are connected with higher self-esteem, higher expectancies, and a higher degree of partner influence and adjustment, which are associated with lower negative impacts. Individual welfare is obtained by supporting the intimate relationship between husband and wife. It also offers hope, an attitude that can provide consistency with good behavior. Forgiving the partner for the mistakes during the marriage will encourage an individual to have a sense of self-worth, hope, and positive influence. Meanwhile, the pain and urge to reciprocate will result in stress and low adjustment for the partners (Gall & Bilodeau, 2020).

With forgiveness therapy, benevolent behavior will grow, resulting in positive coping as well as spiritual coping. Individuals with positive coping in dealing with negative emotions are more likely to analyze experience, resulting in a greater positive influence and greater partner adjustment. Forgiveness can help individuals to suppress negative emotions by consistently dealing with personal stress. Forgiveness can also facilitate individuals to take advantage of coping strategies with positive thinking and spiritual solutions and to strengthen the relationship between husband and wife which requires empathy to reduce the negative impact of emotions and manage stress from the partners as well as strengthen one’s relationship with other people over time (Gall & Bilodeau, 2020).

Forgiveness supporting adolescent psychological development
Psychologically prosperous and better outlooks exist in individuals who have an attitude of forgiveness (Toktas, 2019). There is a significant relationship between showing happiness and forgiveness (Wulandari & Megawati, 2020). Forgiveness of others and oneself has been linked to higher levels of life happiness and reduces depression (Tian & Wang, 2021). There is also a renewed sense of spiritual well-being. Children, adolescents, and adults who consistently apply forgiveness to individuals who have psychologically hurt them will feel prosperous (Wulandari & Megawati, 2020).

Forgiveness is an effective coping strategy for teenagers because by forgiving teenagers will grow positively in their interpersonal relationships, thereby enabling them to have good peer-to-peer interactions and to consistently maintain positive internal conditions for themselves. They will have spiritual happiness and well-being. There is a significant correlation in adolescence which shows that the more mature adolescent is, the easier it is for them to forgive. Also, feeling calmer will lower blood pressure, lower stress, and prevent heart disease (Barcaccia et al., 2019; Wulandari & Megawati, 2020).

Pregnancy is a vulnerable period that will increase the anxiety and depression of an individual who experiences it. A high level of anxiety during pregnancy is a factor leading to depression, especially in the case of UP (Bedaso, Adams, Peng, & Sibbritt, 2021; Diebold et al., 2021). An UP is an unwanted and/or unplanned conception, which has major consequences for the health of the mother and newborn and is still a top priority in the field of health (Goshu & Yitayew, 2019).

Factors that lead to UP include a pregnancy that occurs as a result of rape, a pregnancy at an unexpected time, the baby in the womb suffering from severe multiple defects, a pregnancy resulting from sexual relations outside marriage, families with many children, low socioeconomic conditions, old age, contraceptive failure, husbands who do not want to accept another pregnancy, the distance between children being too close, ignorance or lack of knowledge about sexual behavior that can lead to pregnancy, the health condition of the mother who does not want pregnancy, a career or school reasons, and pregnancy due to incest (Ameyaw et al., 2019; Bekele & Fekadu, 2021; Kassahun et al., 2019).

The greater gestational age will cause concern for mothers who experience UP, especially unmarried individuals because there will be feelings of guilt and fear which will cause deviant behavior. This will trigger stress in the mother excluded from the family because of UP, or they will be considered abnormal in the relationship (E. Cruz, Cozman, Souza, & Takiuti, 2021). UP especially those occurring in adolescence will have negative physical, psychological, social, and spiritual impacts. The physical impact will harm the mother and the fetus, or the mother may attempt to have an abortion which can result in death. From a psychological perspective, the mother will try to avoid responsibility or continue her pregnancy forcibly. Meanwhile, from the social impact, the community may ridicule and isolate the mother (Ameyaw et al., 2019).

The risks that can occur psychologically are stress, severe depression, a stop from continuing education, abuse of the babies, and a feeling of being isolated because of their distant environment and friends. Excessive stress can cause hyperemesis gravidarum (excessive nausea and vomiting), increased blood pressure, or pregnancy poisoning called pre-eclampsia...
or progress to eclampsia which can be life-threatening and increase the risk of maternal mortality. The consequences of depression may cause an individual to consume drugs, alcohol, or smoke. Depression can also result in an accidental or intentional miscarriage that can endanger the safety of both the mother and the fetus (E. Cruz et al., 2021).

When an individual experiences stress, their system will activate the autonomic nerves, especially the sympathetic nerves, and this results in the activation of the parasympathetic nervous system. This will release the hormones from the adrenal cortex into the bloodstream, which causes various effects in the body, such as vasoconstriction of blood vessels, increased blood pressure, increased muscle contractility, the release of stress hormones, and increased heart rate (Jong, Kyung, & Geun, 2021). Besides, the mother’s emotions also affect the child’s development, in which very strong emotions will influence the autonomic nervous system, endocrine work, and metabolism, thereby increasing the child’s heart rate and activity. Children born to sad mothers tend to be hyperactive, and if this is not resolved immediately the problem will be aggravated if the mothers become neglectful in caring for their babies (Nawati & Nurhayati, 2018). On the other hand, severe stress that occurs in mothers with UP can affect self-acceptance and their self-image, increased risk of suicide and depression, poor nutrition throughout pregnancy, mental health concerns, low birth weight infants, and a delayed initiation of prenatal care (Rastad, Golmohammadian, Jalali, Kaboudi, & Kaboudi, 2021).

Adjustment is a human effort to achieve harmony with oneself and the environment to be able to banish feelings of hostility, envy, jealousy, prejudice, depression, anger, and other negative emotions as inappropriate and inefficient personal responses. Acceptance of one’s self does not mean that the individual can accept what happens entirely. Adjustment to UP does not come only from the individual but also the social environment such as family, friends, or neighbors. UP can cause an individual to lack self-confidence in the social environment, such as limiting their interaction with other people, rarely leaving the house, and limiting contact in social media. In this case, it is important to implement appropriate interventions to reduce the negative impacts during pregnancy, especially in cases of UP, such as by applying forgiveness therapy (Priadi & Gurmichele, 2019).

Forgiveness is defined as healing from an injured memory, not erasing. The concept of "forgiveness" can mean two actions, namely apologizing and forgiving. There are multiple factors involved in doing these two, including victims, perpetrators, and varied levels of pain, injuries, and injustice, where forgiveness is always related to three key aspects. The first aspect is to forgive others, the second is to accept other people's apologies, and the final one is to forgive oneself (Priadi & Gurmichele, 2019). Forgiveness is a coping mechanism that focuses on emotions (Dahiya & Rangnekar, 2019). The well-being, self-esteem, and self-acceptance in an individual will increase by forgiving (Praptomojati & Subandi, 2020).

Every problem will have a solution if an individual has a feeling of worth, and acceptance, and is filled with positive thoughts because the individual sees a problem with rational logic and does not easily give up. The individual will have the psychological strength to be able to enjoy life. Forgiveness therapy causes an individual to respect himself and the environment more positively, so the problem is not seen as a threat and there is a change in behavior toward the ability to face the condition (Praptomojati & Subandi, 2020).

Forgiveness can reduce resentment and negative emotions by which an individual can recognize spiritual needs in the psychological, emotional, social, and aesthetic dimensions. Psychosocial interventions such as forgiveness therapy are useful for promoting psychologically adapting behavior, such as social empathy, thereby suppressing maladaptive attitudes (Quintana-Orts et al., 2019). This improves immunity to promote physical health and reduce pain as a sign that the neurological function is good and the individual has forgiven himself and others (Toussaint, Worthington, et al., 2020). Forgiveness therapy is the same as activating the parasympathetic nerves which will ease the work of the heart and calm the work of the brain on the neocortex (Toussaint, Gall, et al., 2020).

The forgiveness dynamics experienced by informants with UP begin with the subject’s feeling hatred for their partners and the UP. Although the subjects initially tried to abort the pregnancy, in the end, they decided to keep the fetus with the excuse that they would not repeat the mistake a second time. Some informants tried to forget the past and did not bring up the mistakes their partners had made. The informants could offer such forgiveness because it was for the later development of their children (Priadi & Gurmichele, 2019).

Forgiving others and oneself can reduce such emotions as anger and regret, and raise awareness of the mistakes that others or oneself have made (Toussaint, Worthington, et al., 2020). Forgiveness offers a calm mental state that supports deep sleep, resulting in better health, where an individual who finds efforts to forgive would be happier (Wulandari & Megawati, 2020), and a happy individual will always feel better and easily forgive, and vice versa (Toussaint, Worthington, et al., 2020).
Conclusion

Unwanted pregnancies can pose a serious risk to the birth of the baby, therefore women with an unwanted pregnancy need an intervention to learn to forgive. This forgiveness therapy can affect physical, psychological, mental, and spiritual conditions which provide a sense of well-being for women during pregnancy, childbirth, and postpartum periods, so it can be a primary preventive intervention for doctors and nurses to facilitate their services. However, further research is needed to measure sympathetic stimulation due to stress and other possible influencing factors, such as personality and family background. If pregnant women who experience UP have not received primary approach attention by providing counseling or therapy during pregnancy, it will have an impact on the risks of childbirth, postpartum, and childcare patterns.

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Conflicts of Interest
None.

References


