

Literature Review

Introduction

Women scarcely receive adequate reproductive life planning education throughout their gynecologic care. This lack of attention has significant consequences, and leaves women without necessary guidance on many topics including contraceptive choices and the importance of pre-conception health (Kleppel, Suplee, Stuebe, & Bingham, 2016). White, Teal, & Potter state that almost half of women in the United States rely on use of less-effective birth control or none at all (2015). Unfortunately, these statistics have resulted in around 80 million unintended pregnancies each year worldwide (Hanson, Nothwehr, Yang, & Romitti, 2014). Many of the unintended pregnancies happen to women who have had short-interval gestations, which is defined as a subsequent pregnancy arising within 12 months of the prior delivery (Bigelow & Bryant, 2015). Use of an evidence-based reproductive life planning tool within practice allows providers to circumnavigate this growing epidemic.

Lack of consistent use of reproductive life planning tools in a large, multi-site obstetrical and gynecological practice located in the Metro East is an issue which greatly impacts the population of patients served by this entity. The population cared for at this organization is largely based on government funded healthcare, with 59 percent of the patients being covered by Medicaid alone. During the period of January 2015 to November 2020, there were 2,346 pregnancies that met criteria for short-interpregnancy interval. This figure averages to roughly 469 pregnancies annually that occur within 12 months of the previous gestation. Although it cannot be known if these pregnancies were undesired, it is assumed that some of these statistics were unplanned occurrences.

The need of addressing this issue is seen in the Center for Disease Control's (CDC) support for health care providers' use of reproductive life planning tools to "improve preconception health and decrease unintended pregnancies" (Tydén, Verbiest, Achterberg, Larsson, & Stern, 2016, p. 299). An emphasis on reproductive life planning is also listed as an important objective outlined in the Healthy People 2020 initiative (U.S. Department of Health & Human Services, 2019). Many times, patients are not aware of the available contraceptive choices and require a great deal of counseling to aide in decision making (Edmonds & Ayres, 2017). This draws attention to a common issue that is seen in practice in regard to inadequate patient education. Providers have the responsibility of ensuring their patients are well-versed in contraceptive options (Braaten & Dutton, 2019). If the review of birth control methods is inadequate or absent, patients are at risk for unintended pregnancy when sexually active in a heterosexual relationship (Braaten & Dutton, 2019). The impact of proceeding with implementation of a teaching tool is relevant to the improvement of patients' health as the increased risk of unintended and short-interval pregnancy contributes to rising rates of maternal and fetal morbidity and mortality (AWHONN, 2016). There is also a financial incentive for patients, providers, and insurance companies alike for reduction of unintended pregnancy rates. Women of lower socioeconomic status are more likely to have an unintended pregnancy, have disjointed prenatal care, and less likely to follow up for post-partum services (Liberty, Yee, Darney, Lopez-Defede, & Rodrigues, 2020). These women are set up for failure as they are already financially burdened and at risk for future unplanned pregnancy due to lack of care (Liberty et al., 2020). As "researchers estimate that for every dollar spent to provide publicly funded contraceptive services, an average of \$5.68 is saved in Medicaid costs" (AWHONN, 2016, p. 719).

AIM

The aim of the literature review was to search for information regarding unintended pregnancy statistics, short-interval pregnancy statistics, and the impact on maternal and fetal health of both of these obstetrical issues. Additionally, a second objective was to identify evidence-based educational tools to be considered for implementation of reproductive life planning to reduce incidence of unintended pregnancies. The final goal was to investigate how implementation of an educational tool could have a positive impact on patients at this clinic and advance the practice of providers who work for this organization.

Search Strategy

Several inquiries were conducted on CINAHL, PubMed, Medline Complete, and Google. Key words used during the search included: patient education, contraception, family planning, reproductive life planning, contraceptive counseling, unintended pregnancy, short-interval pregnancy, post-partum contraception, and practice change. Exclusion criteria applied to the search were resources published earlier than 2013, resources not written in English, and resources that were not available in full text format.

Results

Following the thorough investigation into information regarding the above listed topics many resources were identified. Five resources were discovered pertaining to information on unintended pregnancy. Six resources were identified discussing short-interval pregnancy. Eleven resources were discovered pertaining to reproductive life planning. Lastly, thirteen resources were identified discussing the specific reproductive life planning tool, One Key Question®. Of the thirty-five resources, the majority were scholarly journal articles and two reputable, evidence-based practice websites.

Unintended Pregnancy

Missed or delayed care is proponent of unintended pregnancy, which accounts for roughly one half of all pregnancies in the United States (Mulligan, 2015). Contraceptive methods have varying degrees of effectiveness, which can affect the woman's vulnerability to unintended pregnancy (Sundstrom et al., 2017). A woman's perception of the effectiveness and safety of contraceptive options heavily influences which methods they use (Sundstrom et al., 2017). According to Morse & Moos, many women underestimate their fecundability and do not utilize effective birth control methods as a result (2018). By taking the time to educate thoroughly, we can further impact the growing issue of unintended pregnancy (Sundstrom et al., 2017). Authors Liberty et al, discuss the incidence of women in low socioeconomic status or of a minority ethnicity being at increased risk for unintended pregnancy (2020). The reach of unintended pregnancy is far beyond concerns for maternal and fetal morbidity. Edmonds & Ayres notes that the Institute of Medicine cites undesired pregnancy as a causative factor associated with child abuse and neglect (2017).

Short-Interval Pregnancy

The World Health Organization (WHO) supports the timing of pregnancy to follow the ideal inter-pregnancy interval, which is defined as a subsequent pregnancy occurring 18 to 24 months following the prior gestation (Bigelow & Bryant, 2015). These authors go on to state that 51 percent of the pregnancies in the United States occur outside this window (Bigelow & Bryant, 2015). Another article reports that 70 percent of gestations, which meet criteria for short-interval pregnancy, are undesired (White, Teal, & Potter, 2015). Women who experience short-interval pregnancy are more likely to be of lower socioeconomic status with decreased access to healthcare (Postava & Winter, 2015). Ahrens et al conducted a systemic review of data

surrounding short-interval pregnancy and determined that many high-risk obstetrical complications occur from gestations close in proximity of time (2018). An article by McKinney et al. discusses this impact further in the statement that short-interval pregnancy allows for little recovery from stresses inflicted upon the mother's body during the prior gestation (2017). This increases the risk of pre-term birth, infants that are small for gestational age, and maternal health comorbidities (McKinney, House, Chen, Muglia, & DeFranco, 2017). The same study documented findings of increased risk of infant morbidity and mortality; specifically, an astounding 34.3 percent infant death risk in cases of short-interval pregnancy (McKinney et al., 2017).

Reproductive Life Planning

Reproductive life planning is a protocol that initiates and guides the conversation with patients about their future family goals (Tyden et al., 2016). The idea of reproductive life planning evolved as a healthcare concept resulting from the women's rights movement and was first discussed by Robert Hatcher in 1980 (Edmonds & Ayres, 2017). It is endorsed by the American College of Obstetricians & Gynecologists (ACOG) and the CDC as a tool to decrease the rates of unintended pregnancy (Edmonds & Ayres, 2017). The objective is for reproductive life planning tools to be used as an additional vital sign (Madrigal, Stempinski-Metoyer, Mcmanus, Zimmerman, & Patel, 2019). According to Bigelow & Bryant, use of reproductive life planning encourages women to develop and meet their family planning goals (2015). Tyden et al goes on to say that the use of reproductive life planning in practice supports the health promotion initiative and aides in broadening counseling to include not only a discussion of contraception but also pre-conception counseling and child-spacing goals (2018). These findings support a positive effect on women's overall health by incorporating education on preventative

healthcare as well as decreases age-related fertility factors (Edmonds & Ayres, 2017). Bellanca & Hunter also note the financial benefit of reproductive life planning services by cost-savings acquired in the reduction of unplanned pregnancy (2013). Several types of reproductive life planning tools were investigated during the literature review. Some tools discussed in research articles were entire websites focused on contraceptive counseling and contraceptive methods. Whereas some tools were very brief, singular questions which prompted the opening of the family planning conversation. Other tools were in web-based application format which required advanced downloading to review with patients. The research stresses the importance of the need for patient centered counseling directly following use of any of these reproductive tools to be able to elicit the patient's feelings regarding family planning goals (Baldwin et al., 2018).

Patient Education

An article by Edmonds & Ayres discusses the rudimentary thought of quality impacting provider-patient interactions and the patient's willingness to adhere to the suggested plan of care (2017). Implementation of the recommendations advances the collaboration between providers and patients, and quality of care will improve (Edmonds & Ayres, 2017). In a study by Jones and colleagues, nearly half of the respondents in their study identified a desire to be asked about and counseled on reproductive health needs at every visit (2020). Bellanca & Hunter state that if contraceptive access is a preventative service, its need should be screened for at every visit (2013). Implementation of patient education on reproductive life planning also supports pre-conception health promotion and decreases the risk of unaddressed health comorbidities (Hammarberg, Hassard, Silva, & Johnson, 2020). According to Cooper & Cameron, discussions regarding reproductive goals should be continued during antenatal visits to avoid a potential missed opportunity to discuss family planning objectives (2018). Tyden et al states that

increasing patients' knowledge of reproductive health is vital; it is "essential that healthcare providers aim to support patient autonomy and intentions" (2016, p. 299). Women state that they would follow through with making positive health changes if they had their provider's support (Hammarberg, Hassard, Silva, & Johnson, 2020). The findings of an article by Sundstrom and colleagues suggests that with improvement of provider knowledge and patient education from trusted resources, an increased patient awareness of effective birth control options occurs which leads to increased self-efficacy (2016).

One Key Question

The reproductive life planning tool chosen to be most suitable for the doctoral project is One Key Question® (OKQ). OKQ is a singular question regarding pregnancy intention which is stated "Would you like to become pregnant in the next year?" OKQ is an evidence-based reproductive life planning intervention that "focuses on what women desire, not what they plan" (Hipp, Carlson, & McFarlane, 2017, p. 262). OKQ was developed by the Oregon Foundation of Reproductive Health as an answer to providing an unbiased, positive approach to initiating the discussion of pregnancy intention (Allen et al., 2017). OKQ is endorsed by ACOG, Academy of Family Physicians (AFP), American Public Health Association (APHA), Physicians for Reproductive Health (PRH), and the National Association of Nurse Practitioners in Women's Health (NANPWH) (Baldwin, Singhai, & Allen, 2018). Based on the patient's response to the OKQ question, this educational tool provides an algorithm which opens the dialogue regarding reproductive needs and intentions (Hipp, Carlson, & McFarlane, 2017). Counseling protocols are tailored to the patient's response of "yes", "no", "unsure", or "I am ok either way" (Allen et al., 2017). If a patient answers "yes" to the OKQ question, the provider should proceed with pre-conception counseling and prescribe a folic acid supplement. If the answer is "no", the provider

should then discuss current contraceptive use, happiness with current contraception, and discuss all available contraceptive methods in hierarchy of effectiveness ratings. If the answer is “unsure” or “I am ok either way”, the provider should focus on both pre-conception and contraceptive counseling, then proceeding in the direction the patient prefers (Allen et al., 2017). Morse & Moos identifies OKQ as a reproductive life planning tool as a quick triage tool which addresses the patients’ reproductive preferences (2018). Research demonstrates an increase in contraceptive counseling when the OKQ tool is used within the electronic medical record (Stulberg et al., 2020).

Practice Change

Implementation of OKQ would decrease overall healthcare costs in addition to improving the morbidity and mortality rates of women and infants (Mulligan, 2015). These statistics are motivation enough for healthcare providers, taxpayers, and legislators alike to “buy in” to the importance of supporting contraceptive coverage and increasing access to reproductive healthcare (Cornell et al., 2016). Stulberg et al states that when initiating the practice change to implementing the OKQ tool in the clinic, the focus of the discussion should surround the CDC and ACOG’s practice recommendation to include reproductive life planning at every visit, the evidence-based research that supports use of OKQ in practice, and orientation to use of the OKQ tool in the electronic medical record (2020). The goal of presenting this information in this way is to connect with target population of providers and clinic employees and ensure they value the importance of this change in order for the implementation of the OKQ intervention to be successful (Ajzen, 2006). Linking the evidence-based practice recommendations to current issues is the key link in engaging employees in understanding the importance of successfully adopting the recommendations (Stulberg et al., 2020). Kvach, Marcus, & Loomis recommend

enabling utilization of this tool by medical assistants when they are rooming the patient (2018). Allen et al discusses the ease of the OKQ screening question to be modified for electronic medical record use in an effort to promote consistency of use (2017). These authors go on to discuss the importance of reinforcing practice change in morning huddle meetings and at monthly staff meetings (Kvach, Marcus, & Loomis, 2018). The key to receiving positive reception from patients is to be consistent with the question being asked at every visit and using the same verbiage each time it is asked (Allen et al., 2017). Callegari and colleagues discuss providers avoiding negative pitfalls by integrating evidence-based information with shared decision making following the initiation of dialogue through the use of OKQ (2017).

Discussion

“Clinicians have a unique opportunity to impact patients’ reproductive choices through discussions of pregnancy spacing and family goals” (Bigelow & Bryant, 2015, p. 463). Healthcare providers can be proactive and promote satisfaction with the patient if they are opening the discussion to shared decision making regarding pregnancy intention. The use of the OKQ reproductive life planning tool decreases any concern for time constraints as it is a brief question which is easily integrated into electronic medical record systems (Stulberg et al., 2020). There are easily identifiable stakeholders on both sides of the spectrum. The organization, and subsequent employees, are one example of stakeholders as evidenced by reduction of unintended pregnancy rates decreasing liability with reduction of health risks as well as improved patient provider relationships (Edmonds & Ayres, 2017). Patients are also an important stakeholder when discussing changes to a practice’s contraceptive counseling techniques. When patients are equipped with adequate knowledge regarding their contraceptive choices, reduction of unintended pregnancy occur (Edmonds & Ayres, 2017). Undesired pregnancy is a preventable

health issue if the correct measures are taken to promote patient education and access of use (Aiken, Dillaway, & Mevs-Korff, 2015). The overall message of the results of this literature review emphasizes the importance of discussing family planning preferences and outlining a plan for contraception well before an unintended pregnancy takes place (Aiken, Dillaway, & Mevs-Korff, 2015).

Conclusion

Reproductive life planning puts the patients' preferences at the forefront of their care and addresses preventative care needs (Morse & Moos, 2018). Use of OKQ as a reproductive life planning tool introduces the discussion of family planning goals in an unbiased and positive way that is readily accepted by patients (Curry et al, 2019). The reduction of unintended pregnancy reduces abortion rates, reduces maternal and infant mortality, and is a health care priority listed in Healthy People 2020 (Edmonds & Ayres, 2017).