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Weight Gain, Weight Concerns, Contraceptive Use, & Reproductive Health: A Literature Review

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EXECUTIVE SUMMARY

Weight Gain, Weight Concerns, Contraceptive Use & Reproductive Health

Close to 60% of Oregon adults are overweight or obese (CDC BRFSS, 2002). From 1994 to 2001, obesity in Oregon was reported to increase 59% making it the sole state west of the Rocky Mountains with adult obesity rates over 20% (ODHS, 2003). Rates of obesity are particularly high for certain demographic groups. Being overweight and obese is more common for women specifically among Latino, African American, Native American and Pacific Islander women (Healthy People 2010). Approximately 22% of women in Oregon are categorized as obese and an additional 33% are overweight (Kohn, 2003).

As Oregon focuses on addressing the obesity epidemic, all components of the health and public health sectors are seeking strategies to intervene. Reproductive health providers and Title X clinics, in particular, are uniquely positioned to assist low income women to address weight concerns, and weight issues related to their reproductive health.

Womens' weight concerns related to contraceptive use are important to highlight for three reasons. First, contraceptive discontinuation rates for different methods of birth control within the first years of use are high. When all method-related reasons for stopping use are considered, two-year discontinuation rates are as high as 90% for some methods (Grady et al. 2002) Research also shows that low income women are less likely than other women to resume contraceptive use after discontinuation. Any gap in starting another method puts women at risk for unintended pregnancy. Reasons for method switching can be attributed to multiple factors, but it is commonly believed that weight gain is one important reason. Second, there is increasing evidence to suggest that obesity may reduce contraceptive efficacy for at least some hormonal methods (oral contraceptive pill and the patch) (Alabama Department of Public Health Video Conference June 30th 2004). Finally, obesity contributes to hypertension, diabetes and cardiovascular risk factors that are contraindicated for hormonal contraception. Additionally, women who are overweight or obese are at risk for reproductive issues including diminished ovulation, decreased response to fertility treatment, adverse pregnancy outcomes, and others.

Purpose of this Report

The purpose of this document is to examine how weight gain and weight concerns are related to contraceptive use and reproductive health.

The Oregon Department of Human Services (ODHS) Office of Family Health – Women's and Reproductive Health Office has requested this work be done to inform future directions ODHS may take to address weight issues and obesity.

Three literature reviews were conducted to explore specific relationships between family planning and obesity.

Literature Review 1: Does quantitative research confirm or deny the existence and extent of weight gain related to the use of birth control methods?

Literature Review 2: What is the general existence and extent of weight gain and weight concerns relating to contraceptive use, including patient attitudes, beliefs, and barriers to use?

Literature Review 3: What are best practices, evidence based practices and effective strategies to address weight gain and weight concerns relating to contraceptive use including educational materials, screening tools, clinic intervention tools and protocols?

Methods

These reviews were conducted using standard literature review procedures (Cooper, 1998) and evidence based practice (EBP) research strategies (Rosenthal, 2004). Methodologically, there are many limitations to status of current research in this area. First, relatively few studies look at weight gain as a primary outcome of studies of contraceptive use. Usually, weight gain is reported as a side effect or weight changes are reported without controlling for confounding variables. Second, the majority of contraceptive studies that report weight gain use weaker study designs that are quasi-experimental or non-experimental designs. Randomized control trials represent the most rigorous approach for determining a causal association. Additionally, studies examining the existence and extent of weight gain and weight concerns related to contraceptive used small samples thus the results are hard to generalize to broader populations. Finally, there is little literature to review related to best practice or evidence based practice that address weight concerns and contraceptive use.

Findings

Literature Review 1: Does quantitative research confirm or deny the existence and extent of weight gain related to the use of birth control methods?

Overall, the literature indicates that only 2 methods of contraception are associated with weight gain – implants and injectables. The results for combined oral contraceptive pills are inconclusive. Meta-analyses of studies for this method found that, “Available evidence is insufficient to determine the effect of combination contraceptives on weight, but no large effect is evident” (Gallo, et al 2004). However, these results are limited by the fact that the majority of trials did not use rigorous methods for measuring weight. Three placebo-controlled, randomized trials did not find a causal association between combined OCs and weight gain. Comparisons of different formulations of combined OCs showed no substantial differences in weight or in discontinuation due to weight gain. It is recommended that reproductive health professionals reassure women that substantial weight gains has not been demonstrated in women using combination hormonal contraceptives pills (Gallo, et al 2004).

Literature Review 2: What is the general existence and extent of weight gain and weight concerns relating to contraceptive use, including patient attitudes, beliefs, and barriers to use?

Women report being concerned about weight gain and contraceptive use. Studies of women’s intention to use a method and concerns about potential weight gain, indicate that a small degree of weight gain is acceptable, but weight gain of more than 5 pounds may impact method choice. Weight gain, however, is only one of several side effects associated with method discontinuation. Of the methods for which data is available (combined oral contraceptive pill, ring, implants, injectables), weight gain appears to be the 2nd or 3rd most important side effect of concern. No studies of method discontinuation associated with weight gain are available for the patch, the progestin only pill or the intrauterine device (IUD).

These findings do not help us understand how weight or risk of weight gain plays into a woman's decision to select one method of contraception over another or how much it factors into a woman's initial selection of a method. It is also unclear how concerns about weight gain differ by age, culture background, a person's value system or by racial or ethnic background.

Finally, in the future, as obesity and weight issues become increasingly more important areas of national concern, it is unclear how much a woman's perception of the risk of weight gain will impact her selection of a contraceptive method

Literature Review 3: What are best practices, evidence based practices and effective strategies to address weight gain and weight concerns relating to contraceptive use including educational materials, screening tools, clinic intervention tools and protocols?

Best Practices: No best practices, evidence based practice guidelines or promising practices were located that focused on weight gain and weight concerns related to contraceptive use. Clinical guidelines do exist for obesity management, nutrition and exercise independent of reproductive health concerns.

Telephone Interviews with Oregon Family Planning Clinics & Clinical and Content Area Experts: Provider concerns related to weight gain and contraceptive use focused on concerns related to the method depo provera and the prevalence of obese patients they see on a daily basis.

Provider identified multiple barriers to addressing weight and obesity issues in family planning clinics including lack of time, discomfort and awkwardness in raising the issue with clients, a need to know what kinds of interventions are effective, an expressed need to have places to refer women for additional help, a need to better understand the links between poverty and nutritional choices, and a need to improve cultural competency skills related to weight gain.

Experts interviewed emphasized the need to raise provider awareness about the culture of poverty and how this impacts women's food choices and behavior related to weight. In addition, motivational interviewing was identified as a potentially important tool for practitioners to use to address weight issues. Finally, experts pointed to a need for reproductive health providers to partner with other organizations addressing obesity in their local communities.

Each clinic site interviewed expressed interest in participating in future funding opportunities to design programs to address weight and obesity issues. The sites requested that the State make funding flexible so that sites can tailor interventions to the local level. However, they also expressed strong interest in having the state make recommendations about what interventions are most effective.

Recommendations for Program Practice and Future Research

Based on the findings of the literature review, several recommendations are made.

1. There is a need to raise awareness with clinicians and women of the reproductive health risks associated with obesity.
2. Family planning providers may want to consider reviewing and updating protocols for counseling women about weight issues related to contraceptive methods. It is recommended that clinicians encourage clients to identify a plan of action if they feel they are gaining weight which may include increased exercise, a selection of a back up method or a plan to call the clinician to answer questions and discuss side effects. It is important that

if a client chooses to discontinue, they have the opportunity to start another method immediately.

3. Family planning providers may benefit from additional training on how to address issues of obesity and weight gain in culturally competent, time effective ways. Motivational counseling may be an ideal approach to consider.
 4. Reproductive health clinics should consider ways to partner with community organizations to address the state strategic plan for addressing obesity in Oregon outlined in 2 documents- *A Healthy, Active Oregon: The Statewide Public Health Nutrition Plan and The Statewide Physical Activity Plan*.
 5. Family planning clinics can participate in applied research to help develop a better understanding of complexity of issues related to weight gain, weight concerns, contraceptive use, and reproductive health.
 6. Future research needs to focus on a number of issue such as identify the relationship between weight and contraceptive efficacy, assess impact of pre-counseling on weight issues on contraceptive continuation rates and patient satisfaction, and others. Qualitative research can assist us to better understand provider and patient concerns about weight and how they interact with other side effect issues. In particular, qualitative research could illuminate how family planning clients would prefer weight issues to be addressed during their visits. Quantitative and qualitative research can help develop our understanding of how women make decisions about which contraceptive method to use and develop a better understanding of reasons for discontinuation and method switching. Finally, evaluation of clinic based interventions are needed to develop a better understanding of the true costs and to develop evidence based practices.
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