Decision-Making Process of Women Carrying a \textit{BRCA1} or \textit{BRCA2} Mutation Who Have Chosen Prophylactic Mastectomy

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Germline mutations in the \textit{BRCA1} or \textit{BRCA2} genes are responsible for most hereditary breast cancers (National Cancer Institute, 2008). Carriers are more likely to develop breast cancer and at a younger age than the general population (Rogozinska-Szczepka et al., 2004). A meta-analysis by Chen and Parmigiani (2007) reported that the risk for developing breast cancer in mutation carriers aged 70 years or younger varies from 40%–70%.

Women with \textit{BRCA1} and \textit{BRCA2} mutations face a number of options to manage their breast cancer risk, including increased surveillance, chemoprevention, prophylactic salpingo-oophorectomy, and prophylactic mastectomy (Zakaria & Degnim, 2007). Prophylactic mastectomy dramatically reduces breast cancer risk for mutation carriers by 90%–95% (Rebbeck et al., 2004; van Sprundel et al., 2005); however, the uptake of prophylactic mastectomy varies from 0%–49% in Austria, Canada, France, Israel, Italy, Norway, Poland, and the United States (Metcalfe, Lubinski, et al., 2008). The potential for surgical complications and aesthetic concerns have been suggested as deterrents (Ray, Loescher, & Brewer, 2005; Zakaria & Degnim, 2007). In addition, some women may be opposed to prophylactic mastectomy, feeling that the loss of a body part mimics having breast cancer (Press et al., 2005). Women at high risk for breast cancer face the challenge of deciding whether to undergo surgery for risk reduction, to rely on the less effective but less aggressive option of chemoprevention, or to be screened frequently for early detection (Kurian et al., 2005). As a result, the current study sought to better understand the decision-making process of women carrying a \textit{BRCA1} or \textit{BRCA2} mutation who have chosen prophylactic mastectomy.

\textbf{Literature Review}

Decision making about breast cancer has been the subject of research in various contexts. Several studies have explored the experience of women newly diagnosed with breast cancer who were making surgical treatment decisions. Preference for involvement in decision making varied from active participation to deferring to the expertise of physicians (Hack, Degner, Watson, & Sinha, 2006; Hack, Degner, Watson, & Sinha, 2006; Hack, Degner, Watson, & Sinha, 2006; Hack, Degner, Watson, & Sinha, 2006; Hack, Degner, Watson, & Sinha, 2006). The uptake of prophylactic mastectomy varies from 0%–49% in Austria, Canada, France, Israel, Italy, Norway, Poland, and the United States (Metcalfe, Lubinski, et al., 2008). The potential for surgical complications and aesthetic concerns have been suggested as deterrents (Ray, Loescher, & Brewer, 2005; Zakaria & Degnim, 2007). Prophylactic mastectomy dramatically reduces breast cancer risk for mutation carriers by 90%–95% (Rebbeck et al., 2004; van Sprundel et al., 2005); however, the uptake of prophylactic mastectomy varies from 0%–49% in Austria, Canada, France, Israel, Italy, Norway, Poland, and the United States (Metcalfe, Lubinski, et al., 2008). The potential for surgical complications and aesthetic concerns have been suggested as deterrents (Ray, Loescher, & Brewer, 2005; Zakaria & Degnim, 2007). In addition, some women may be opposed to prophylactic mastectomy, feeling that the loss of a body part mimics having breast cancer (Press et al., 2005). Women at high risk for breast cancer face the challenge of deciding whether to undergo surgery for risk reduction, to rely on the less effective but less aggressive option of chemoprevention, or to be screened frequently for early detection (Kurian et al., 2005). As a result, the current study sought to better understand the decision-making process of women carrying a \textit{BRCA1} or \textit{BRCA2} mutation who have chosen prophylactic mastectomy.