
It makes sense that women would fear lymphedema and want to protect their arms from known risk factors, such as skin infection (Soran et al., 2006). However, why some women consider strenuous forms of arm activity a risk factor for lymphedema is unknown (Karki, Simonen, Malkia, & Selfe, 2004), particularly when the evidence shows no association between the two (Ahmed, Thomas, Yee, & Schmitz, 2006; Kilbreath, Refshauge, Beith, & Lee, 2006; McKenzie & Kalda, 2003) and actually supports the use of resisted arm exercise to aid recovery (Ahmed et al.; Kilbreath et al.; McKenzie & Kalda). In fact, evidence suggests that arm exercises may reduce the risk of lymphedema as a result of enhanced lymphatic return and regeneration of secondary lymphatic channels (Box, Reul-Hirche, Bullock-Saxton, & Furnival, 2002; Johansson, Tibe, Weibull, & Newton, 2005; Lane, Dolan, Worsley, & McKenzie, 2007; Moseley, Piller, & Carati, 2005). Conversely, failure to exercise and inactivity of the affected arm may result in poor lymphatic clearance and stasis of the lymphatic system in the affected arm (Trettin, 1992). Considering that pain and shoulder restriction are more prevalent than lymphedema 6–12 months after surgery (Thomas-Maclean et al., 2008), prevention through exercise and activity is recommended. In particular, strenuous arm exercises against resistance are necessary for recovery of arm strength and may even counteract the effects of bone mineral loss caused by adjuvant therapy for breast cancer (Cheema, Gaul, Lane, & Fiatarone Singh, 2008). Avoidance of such activity may result in prolonged arm weakness, scapulo-humeral dysfunction, osteopenia, and, potentially, lymphedema (Cheema et al.)

Protection Motivation Theory (PMT) (Rogers, 1983) is a social cognition model chosen for this study to explore why some women intend to avoid strenuous arm activity after breast cancer surgery.