

# Predictors Of Social Function and Feelings of Isolation Among Metastatic Breast Cancer Survivors

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## Background

- The symptoms and side effects of metastatic breast cancer and its treatment can be intensive and long lasting and may interfere with spending time with family, friends, and community.
- There is evidence that elevated levels of social support are associated with positive health outcomes for breast cancer patients and survivors, but social functioning may be impacted by the cancer illness experience.

#### Aims

- Describe social functioning and isolation among metastatic breast cancer (MBC) survivors who received chemotherapy.
- Identify factors related to poorer social functioning and greater concern about feeling isolated among survivors.

#### Methods

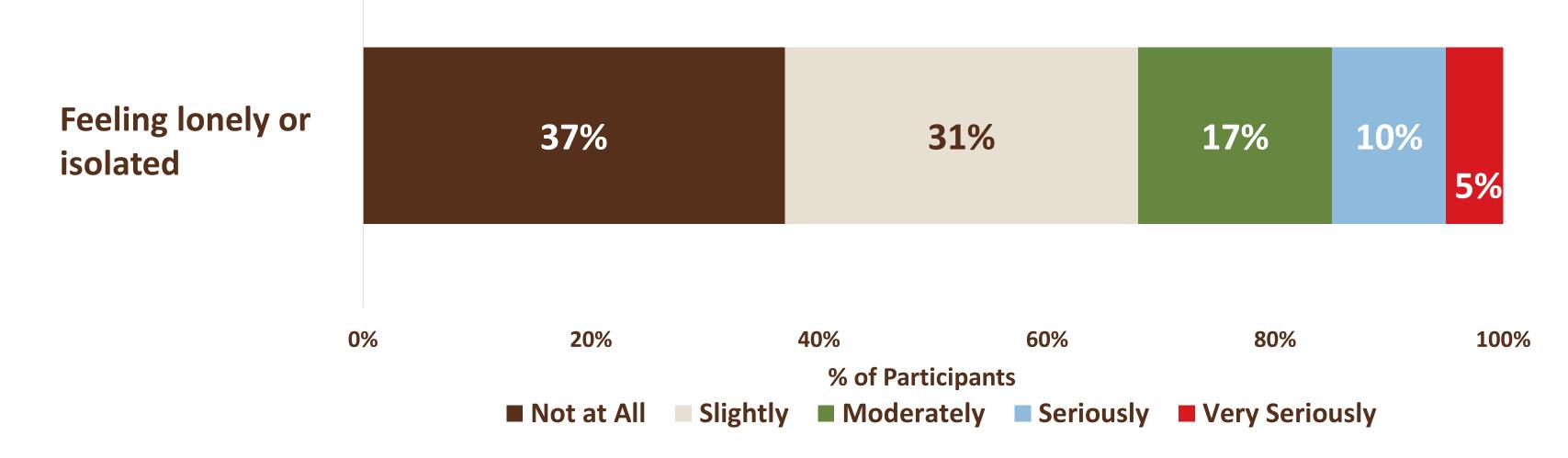
273 MBC patients and survivors from Cancer Support Community's Cancer Experience Registry® (CER) reported their history of chemotherapy, completed the Patient-Reported Outcomes Measurement Information System (PROMIS-29v2.0) health-related quality of life survey questions, and rated their level of concern about key areas of life. Multiple regression analysis was used to identify significant correlates of 1) social functioning (T-scores for PROMIS Ability to Participate in Social Roles and Activities 4item scale), and 2) level of concern about "feeling lonely or isolated."

# Particinants

|                                    | M/n | SD/% |
|------------------------------------|-----|------|
| Age (years; <i>Range 18-84</i> )   | 53  | 11   |
| Non-Hispanic White                 | 206 | 77%  |
| Time Since Diagnosis               |     |      |
| >= 5 years                         | 121 | 45%  |
| Stage IV (Metastatic) at Diagnosis | 81  | 30%  |
| Treatment History                  |     |      |
| Surgery                            | 228 | 84%  |
| Chemotherapy (current)             | 153 | 56%  |
| Radiation therapy (past)           | 121 | 45%  |
| Radiation therapy (current)        | 58  | 22%  |
| Hormonal (past)                    | 50  | 19%  |
| Hormonal (current)                 | 114 | 43%  |
| Chemotherapy Type                  |     |      |
| IV and oral                        | 82  | 30%  |
| IV only                            | 163 | 60%  |
| Oral only                          | 25  | 9%   |

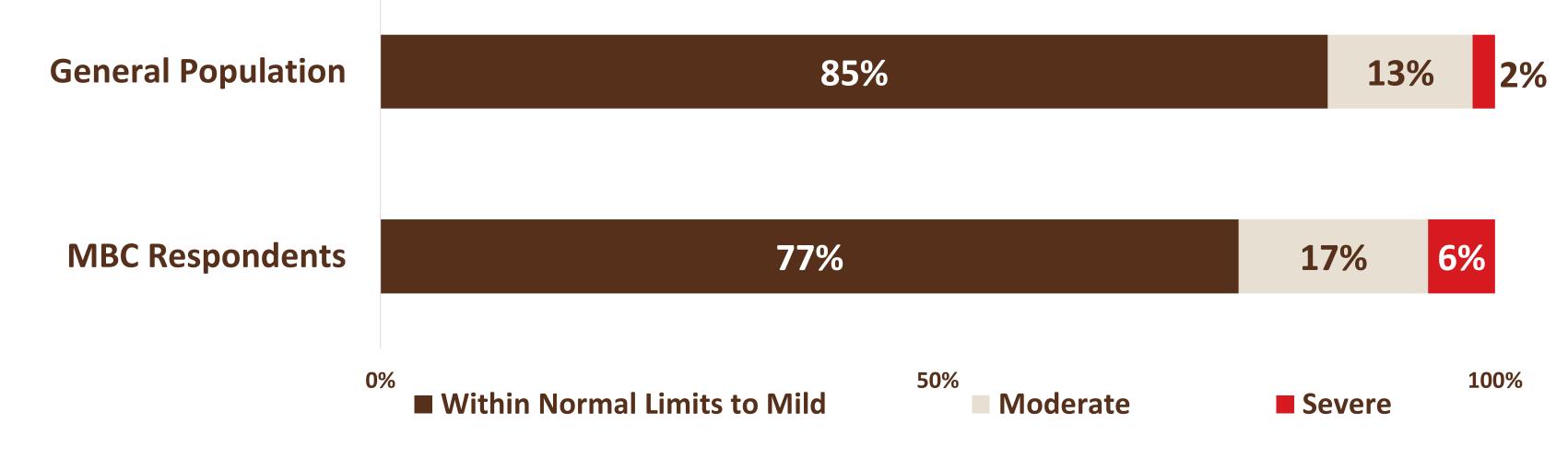
#### Results

#### Concern about Feeling Lonely or Isolated



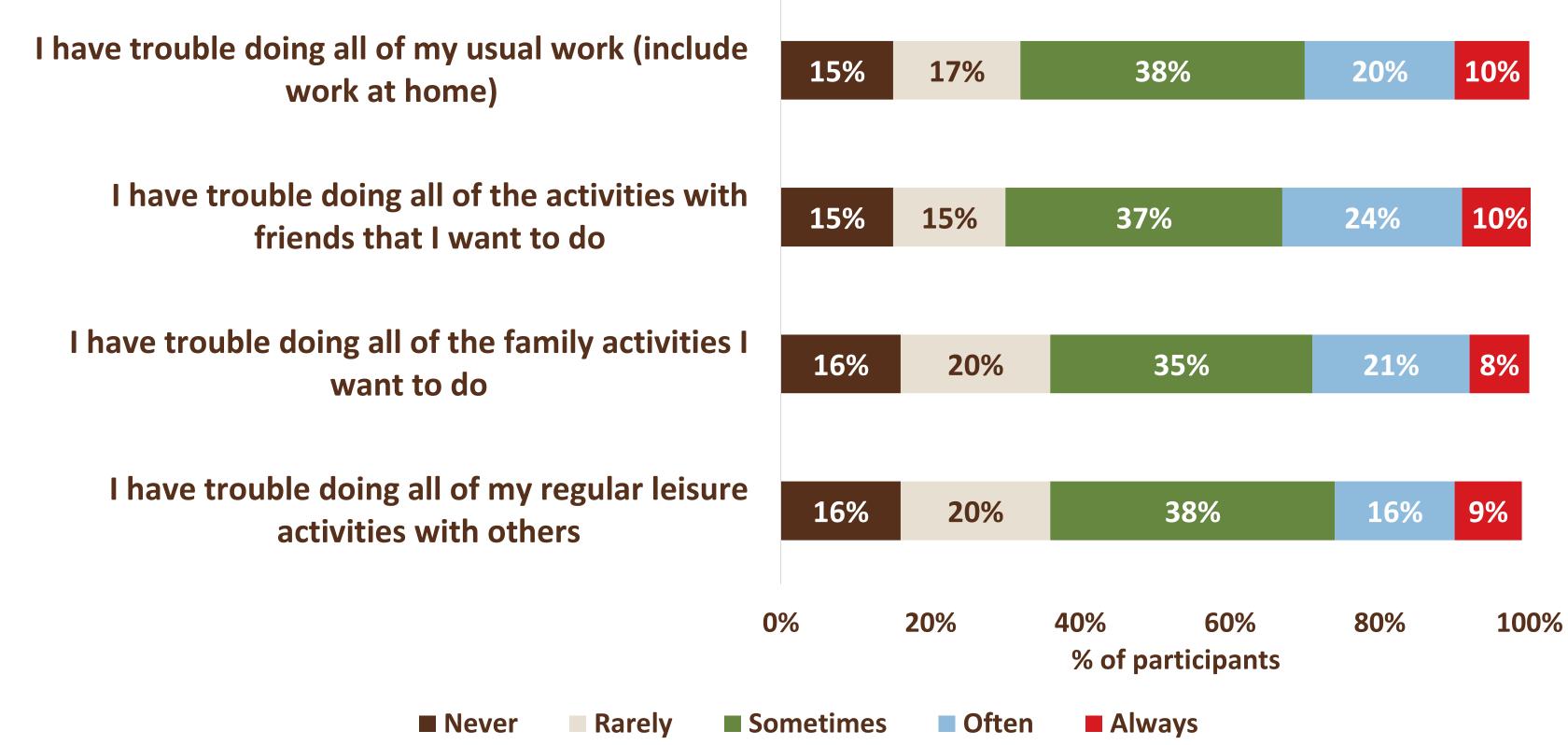
Nearly one third of MBC participants surveyed reported moderate to very serious concern about feeling lonely or isolated

#### MBC Patients Experiencing Poorer Social Functioning



23% of MBC participants reported a level of social functioning suggesting moderate to severe impairment (>1 standard deviation poorer as compared to the general U.S. population)

# Social Functioning Difficulties



MBC participants "often to always" experienced trouble with doing activities with friends (34%) and family (29%), work (30%), and leisure activities (25%)

# Multivariate associations with poorer social functioning $(R^2 = .564, p < .001, n = 134)$

- Currently receiving chemotherapy (sr = -.19, p < .01)
- Greater PN interference (sr = -.22, p < .001)
- Greater fatigue interference (sr = -.49, p < .001)

Poorer social functioning was associated with currently receiving chemotherapy, having greater peripheral neuropathy interference, and having greater fatigue interference.

## Multivariate associations with concern about feeling lonely or isolated

 $(R^2 = .35, p < .001, n = 143)$ 

- Greater PN interference (sr = .16, p < .05)
- Fatigue interference (sr = .37, p < .001)

Concern about feeling lonely or isolated was associated with having greater peripheral neuropathy interference and having greater fatigue interference.

Independent variables included socio-demographic factors, clinical history, treatment history, and physical symptom burden.

Significant associations with social functioning and concern about feeling isolated in bivariate analysis but not multivariate included lower income, unemployment, less time since diagnosis, and shorter interval between initial and metastatic diagnoses.

# Implications and Conclusions

- Symptom burden, including peripheral neuropathy and fatigue, are associated with poorer social functioning and increased isolation among metastatic breast cancer survivors.
- Currently undergoing chemotherapy treatment is also associated with poorer social function, even after accounting for the contributions of symptom burden.
- Our results highlight the significant social impact of living with metastatic breast cancer and the value of tailored supportive care to address survivors' unmet physical and socioemotional needs.

#### Acknowledgments

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The Cancer Experience Registry is an online research initiative that captures the immediate and ongoing or changing social and emotional experiences of cancer survivors and their caregivers.

- The Registry is for all cancer survivors and caregivers, and also includes 13 disease-specific surveys.
- Findings contribute toward advancing research, health care and policy.
- Over 14,000 cancer survivors and caregivers are registered in the Cancer Experience Registry.

Learn more or join the Registry at www.CancerExperienceRegistry.org