General and cancer-specific psychosocial outcomes in Black breast cancer survivors: Examining the role of cultural values and patient-provider communication

Paige W. Lake, MPH, [1] Claire C. Conley, PhD,[1] Tuya Pal, MD,[2] Steven K. Sutton, PhD [3] Susan T. Vadaparampil, PhD[1]

[1]Moffitt Cancer Center, Department of Health Outcomes and Behavior, Tampa, FL; [2]Vanderbilt University Medical Center, Department of Medicine, Nashville, TN; [3]Moffitt Cancer Center, Department of Biostatistics and Bioinformatics Shared Resources, Tampa, FL

Purpose

- Breast cancer (BC) survivors frequently experience higher levels of anxiety and depression following treatment due to concerns about cancer recurrence and survivorship challenges

- Psychosocial concerns are particularly prevalent among Black BC patients

- Effective provider communication and patient confidence in communication skills may reduce patient levels of anxiety and depression and improve health-related quality of life

  - Many patients undergoing BC treatment view their providers as a source of emotional support

- Cultural values may also positively impact these psychosocial outcomes

- We examined the impact of patient-provider communication and cultural values on psychosocial outcomes among Black BC survivors

Methods

- Black women ≤50 years diagnosed with invasive BC between 2009-2012 were recruited from the Fl. Cancer Registry (n=351)

- Women completed measures assessing:

  - Patient-provider communication (provider communication quality, patient confidence in communicating with providers)

  - Cultural values (religiosity, collectivism, future time orientation)

  - General psychosocial factors (anxiety, depression) and cancer-specific psychosocial factors (cancer-related distress, worry about BC recurrence)

- Patients were categorized into high, moderate, and low levels of communication and cultural values

Variable	Range	High	Low	Overall
African American Cultural Variables				
Religiosity	1-4	4	< 4	3 "highs"=High
Collectivism	1-4	4	< 4	2 "highs"=Moderate
Future Time Orientation	1-4	≥ 3	< 3	1 "high"=Low 0 "highs"=Minimal
Communication Variables				
Communication Quality	0-16	4	< 4	2 "highs"=Effective
Confidence in Communication	0-9	4	< 4	1 "high"=Fair 0 "highs"=Low

Table 1. *Demographic characteristics of Black breast cancer patients by level of communication (n=352)*

	Low communicators (n=190)	Fair communicators (n=102)	Effective communicators (n=60)	Total	p value
Employment status					0.12
Not employed/Unknown	42.7% (79)	29.4% (30)	38.3% (23)	37.5% (132)	
Employed	58.4% (111)	71.8% (72)	62.6% (37)	62.5% (220)	
Education					0.42
Some college or below	58.9% (112)	59.8% (61)	68.3% (41)	60.7% (214)	
College Graduate+	41.1% (78)	40.2% (41)	31.7% (19)	39.2% (138)	
Marital status*					**0.03**
Not partnered	54.7% (104)	67.6% (69)	70% (42)	61% (215)	
Partnered	44.7% (85)	32.4% (33)	30% (18)	38.6% (136)	
Health status					0.06
Poor/Fair Health	62.1% (118)	58.8% (60)	45% (27)	58.2 (205)	
Good/Excellent	37.9% (72)	41.2% (42)	55% (33)	41.7% (147)	
Cancer Stage					0.23
Localized	52.6% (100)	55.9% (57)	46.7% (28)	52.5% (185)	
Regional	43.7% (83)	39.2% (40)	40% (24)	41.7% (147)	
Distant	2.6% (5)	3.9% (4)	10% (6)	4.2% (15)	
Unstaged	1.6% (3)	.9% (1)	3.3% (2)	1.7% (6)	

significant at p<.05

Table 2. *Demographic characteristics of Black breast cancer patients by level of cultural values (n=351)*

	Minimal cultural values (n=81)	Low cultural values (n=130)	Moderate cultural values (n=91)	High cultural values (n=49)	Total	p value
Employment status						0.32
Not employed/Unknown	37.0% (30)	33.8% (44)	37.4% (34)	49.0% (24)	37.5% (132)	
Employed	63.0% (51)	66.2% (86)	62.6% (57)	51.0% (25)	62.2% (219)	
Education						0.61
Some college or below	61.7% (50)	61.5% (80)	56.0% (51)	67.3% (33)	60.7% (214)	
College Graduate+	38.3% (31)	38.5% (50)	43.9% (40)	32.7% (16)	38.9% (137)	
Marital status						0.79
Not partnered	58.0% (47)	63.6% (82)	62.6% (57)	57.1% (28)	60.8% (214)	
Partnered	42.0% (34)	36.4% (47)	37.4% (34)	42.9% (21)	38.6% (136)	
Health status						0.20
Poor/Fair Health	65.4% (53)	60% (78)	56.0% (51)	47.3% (23)	58.2% (205)	
Good/Excellent	35.6% (28)	40% (52)	44.5% (40)	53.1% (26)	41.4% (146)	
Cancer Stage						0.64
Localized	48.1% (39)	56.9% (74)	49.4% (45)	53.1% (26)	52.2% (184)	
Regional	45.7% (37)	37.7% (49)	43.9% (40)	42.9% (21)	41.8% (147)	
Distant	6.2% (5)	3.8% (5)	5.4% (5)	0	4.3% (15)	
Unstaged	1.2% (1)	1.5% (2)	1.1% (1)	4.1% (2)	1.7% (6)	

Table 3. *Multivariable predictors of general and breast cancer-specific psychosocial outcomes*

	Unstandardized Coefficient (SE)	β	95% CI	p	R²
Model 1. Outcome: Anxiety					.099
Level of communication*	-.789 (.311)	0.135	-1.40- -.177	**.012**	
Level of acculturation	-.108 (.239)	-.024	-.578- .361	0.65	
Education level*	-1.11 (.482)	-.122	-2.06- -.162	**.02**	
Marital Status	.092 (.471)	.010	-.835- 1.02	0.85	
Employment Status	-.730 (.487)	-.080	-1.69- .227	0.13	
Health Status**	-1.76 (.472)	-.195	-2.68- -.829	**.001**	
Model 2. Outcome: Depression					.156
Level of communication*	-.526 (.263)	-.103	-1.04- -.008	**.04**	
Level of acculturation	-.370 (.202)	-.093	-.768- .027	0.06	
Education level**	-1.32 (.408)	-.166	-2.12- -.513	**.001**	
Marital Status	.058 (.399)	.007	-.728- .843	0.88	
Employment Status	-.692 (.412)	-.086	-1.50- .119	0.09	
Health Status**	-2.06 (.399)	-.261	-2.84- -1.27	**.001**	
Model 3. Outcome: Worry about cancer recurrence					.095
Level of communication	-.071 (.068)	-.056	-.205- .063	0.30	
Level of acculturation	.016 (.052)	.016	-.087- .119	0.77	
Education level*	-.273 (.105)	.139	-.480- -.067	**.01**	
Marital Status	-.021 (.104)	-.011	-.225- .183	0.84	
Employment Status	-.101 (.107)	-.051	-.311- .109	0.34	
Health Status**	-.460 (.103)	-.236	-.663- -.257	**.001**	
Model 4. Outcome: Cancer-related distress					.062
Level of communication	-1.60 (1.33)	-.066	-4.21- 1.02	0.23	
Level of acculturation	-.386 (1.02)	-.020	-2.39- 1.62	0.71	
Education level	-3.75 (2.06)	-.099	-7.80- .304	0.07	
Marital Status	.164 (2.01)	.004	-3.80- 4.13	0.94	
Employment Status	-2.39 (2.08)	-.063	-6.48- 1.70	0.25	
Health Status**	-6.63 (2.02)	-.176	-10.60- -2.66	**.001**	

*significant at p<.05; **significant at p<.001*

Data Analysis

- Spearman rank order correlations examined the relationship between demographic variables and the four psychosocial outcomes

- Chi-square tests examined: (1) differences in demographic characteristics by communication and cultural values groups, and (2) differences in communication level by cultural values

- Multiple regression analysis examined communication and cultural variables as predictors of general and cancer-specific psychosocial factors

Results

- Over half of women (60%) fell into the 'minimal' or 'low' cultural values groups

- The majority of women (83%) fell into the 'low' or 'fair' communication groups

- Employment, health status, and education level were significantly associated with psychosocial outcomes and included as control variables in multivariable analysis.

  - Marital status significantly differed by communication group and was also included as a control variable

- Women in the 'minimal cultural values' category were significantly more likely to be in the 'low communication' group (p=.001) or 'fair communication' group (p=.004) compared to women in the other cultural values categories

- In multivariable analyses, level of communication was significantly associated with anxiety (β=-.135, p<.01) and depression (β=-.103, p<.05), but not significantly related to cancer-specific psychological functioning (Table 3)

  - 'Effective communicators' reported lower levels of anxiety and depression

Conclusions

- Patients may not be confident communicating with providers and may hold generally poor perceptions of provider communication quality

- Most women in our sample had low cultural values

- Cancer patients often experience anxiety and depression both during and after cancer care

- Patient-provider relationships and patient empowerment may be key components of cancer survivorship

- Future multi-level interventions should target both patients and providers

  - Patients: Focus on increasing patient self-efficacy in communicating with providers

  - Providers: Focus on improving patient-centered communication skills

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