



2020

## Patient engagement in action: Timing and intensity of strategies used to engage low income depressed mothers of infants and toddlers

Maureen J. Baker

*University of North Carolina at Chapel Hill, [mjbaker@email.unc.edu](mailto:mjbaker@email.unc.edu)*

Beth Perry Black

*University of North Carolina at Chapel Hill, [Bblack@ad.unc.edu](mailto:Bblack@ad.unc.edu)*

Linda S. Beeber

*University of North Carolina at Chapel Hill, [beeber@email.unc.edu](mailto:beeber@email.unc.edu)*

Follow this and additional works at: <https://pxjournal.org/journal>



Part of the [Health and Medical Administration Commons](#), [Health Policy Commons](#), [Health Services Administration Commons](#), [Health Services Research Commons](#), and the [Higher Education Commons](#)

### Recommended Citation

Baker, Maureen J.; Black, Beth Perry; and Beeber, Linda S. (2020) "Patient engagement in action: Timing and intensity of strategies used to engage low income depressed mothers of infants and toddlers,"

*Patient Experience Journal*: Vol. 7 : Iss. 3 , Article 17.

DOI: [10.35680/2372-0247.1434](https://doi.org/10.35680/2372-0247.1434)

This Research is brought to you for free and open access by Patient Experience Journal. It has been accepted for inclusion in Patient Experience Journal by an authorized editor of Patient Experience Journal.

---

## Patient engagement in action: Timing and intensity of strategies used to engage low income depressed mothers of infants and toddlers

### Cover Page Footnote

The authors would like to acknowledge Drs. Carol Durham, Gwen Sherwood and Karen Drenkard for their expertise and direction. This article is associated with the Patient, Family & Community Engagement lens of The Beryl Institute Experience Framework. (<http://bit.ly/ExperienceFramework>). You can access other resources related to this lens including additional PXJ articles here: [http://bit.ly/PX\\_PtFamComm](http://bit.ly/PX_PtFamComm)

## Patient engagement in action: Timing and intensity of strategies used to engage low income depressed mothers of infants and toddlers

Maureen J. Baker, *University of North Carolina at Chapel Hill*, [mjbaker@email.unc.edu](mailto:mjbaker@email.unc.edu)

Beth Perry Black, *University of North Carolina at Chapel Hill*, [bblack@ad.unc.edu](mailto:bblack@ad.unc.edu)

Linda S. Beeber, *University of North Carolina at Chapel Hill*, [beeber@email.unc.edu](mailto:beeber@email.unc.edu)

### Abstract

The purpose of this study was to illuminate the process of patient engagement and to determine how components of patient engagement were operationalized in the nurse-patient interpersonal relationship with low income, depressed mothers, a traditionally underserved population. Using a descriptive quantitative design, we examined how components of patient engagement were executed across three phases of the nurse-patient interpersonal relationship. We assessed for differences in engagement strategies used in different phases of the interpersonal relationship and with mothers with varying levels of engagement. Through this study, we observed that patient engagement has several dynamic components varying in intensity and frequency, depending on the phase of the nurse-patient relationship. Mothers varied in their degree of engagement. Lack of engagement by mothers limited the nurses' use of engagement skills and strategies, thus underscoring the importance of effort and time spent in the orientation phase. Findings from this study can inform and advance the science of patient engagement by expanding the knowledge base and understanding as to the rhythm and flow of patient engagement in practice. Patient engagement requires persistence and variation of engagement strategies to establish an ongoing interpersonal relationship with patients.

### Keywords

Interactive care model, patient and family partnership (and engagement), patient centered care, patient engagement, person-centeredness

### Introduction

The health care paradigm is in the midst of a substantial cultural shift away from the traditional paternalistic model and towards a more transparent, collaborative, and shared-decision making model.<sup>1-3</sup> Patient engagement, the partnership of patients and health care providers in taking purposeful action towards improving patients' health,<sup>4</sup> may be useful in facilitating and sustaining this necessary paradigm shift. In light of the current COVID pandemic, a deeper understanding of how patient engagement is operationalized can be critical in slowing the spread of the infectious disease as well as strategies to deliver optimal, patient centered care.

Patients highly engaged in their health and health care have better health care outcomes and lower health care costs<sup>5-15</sup>; however, empirical evidence on patient engagement is newly developing. The Interactive Care Model,<sup>16</sup> an evidence-based patient engagement process model, showed significant promise in capturing best practices for engaging a traditionally underserved population in a mental health intervention.<sup>17</sup> The ICM has five key processes: 1) assessing a person's capacity for engagement; 2) information exchange and communicating choices; 3)

planning; 4) determining appropriate interventions; and 5) evaluating. The ICM's seven patient-family-providers partnership roles (whole person, intentional presence, collaborating, coaching, caring and trusting relationship, navigating) captured specific strategies nurses implemented to engage and retain women from a traditionally underserved population in a health care intervention. However, the timing and dosages of specific patient engagement strategies to improve health care delivery have yet to be described adequately.

Hildegard Peplau's seminal Theory of Interpersonal Relations placed the nurse-patient relationship at the center of nursing practice and therapeutic care.<sup>18,19</sup> In this paper, we use the more recently developed ICM and build on Peplau's Theory of Interpersonal Relations to describe the timing and intensity of various engagement strategies used by advanced practice mental health nurses to engage a traditionally underserved population. Specifically, we examined how mental health nurses – experts in verbal and non-verbal communication – engaged low income depressed mothers of infants and toddlers in a mental health and parenting intervention. The mothers had histories of facing significant life stressors, traumatic events, disturbances in interpersonal relationships, and

limited social supports<sup>20</sup> creating barriers to engagement. We examined nurses' use, timing, and intensity of patient engagement strategies specified in the Interactive Care Model and in Peplau's three phases (orientation, working and termination phases) of the nurse-patient interpersonal relationship. Additionally, because mothers had varying levels of engagement, we explored how nurses used strategies to increase mothers' engagement.

### Theoretical Frameworks

The Interactive Care Model (ICM)<sup>16</sup> is a relatively new patient engagement framework that identifies and organizes essential interpersonal exchanges among patients, families, and providers during health care interactions. As a general patient engagement process model, the ICM has widespread applicability and relevance to various care settings and populations, detailing specific steps and strategies to facilitate engaging patients fully in the care of their health<sup>16</sup> (Figure 4.1).

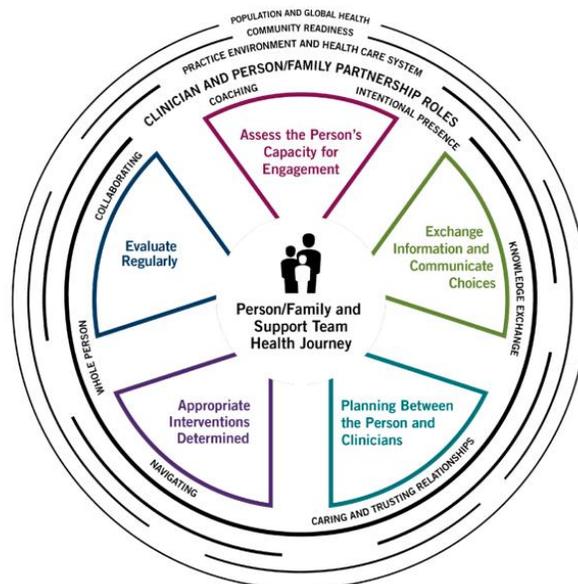
The model has been used as a foundation for a suite of software products geared to standardize and enhance patient's health care experience using technology integration. For example, Get Well Inpatient, a patient engagement software system based on the ICM, has been used in numerous primary care settings to enhance education, communication, and patient engagement via iPads. Other tools based on the Interactive Care model (Get Well Inpatient, Get Well Rounds, Get Well Loop, and Get Well Practice) have led to improvements in patient satisfaction scores and improved readiness for discharge in hospital settings, veterans affairs, and primary care offices.<sup>21</sup>

In addition, the ICM is the conceptual foundation for Get Well Network's Patient Engagement Index (PEI), a psychometrically valid and reliable instrument tested among the inpatient adult medical-surgical population. Similar to a heart rate or oxygen saturation reading, the PEI is used to assess and score a person's capacity to be engaged in care through a series of 18 item Likert scale items. Once calculated, the PEI score can be used to guide clinicians in engagement strategies in order to tailor more patient and family centered care.<sup>22</sup>

Having the nurse-patient relationship at the center of health care delivery is not a new concept. For decades, researchers have used Hildegard Peplau's Theory of Interpersonal relations<sup>18,20</sup> as a guiding framework for studies focusing on establishing the therapeutic milieu in which nurse-patient partnerships form and thrive, thus fostering and improving patient engagement, patient care, and healing. In her landmark book, *Interpersonal Relations in Nursing: A Conceptual Frame of Reference for Psychodynamic Nursing*, Peplau's central focus was the planned, professional, reciprocal, and therapeutic relationship between the nurse and patient as the basis and context for professional nursing.<sup>18,19,23</sup> Different from a social relationship, the therapeutic relationship formed between nurse and patient is patient-centered, health focused, goal-oriented, and is delineated by clear professional boundaries.<sup>24-26</sup> Peplau's theory notably shifted the focus from what nurses *do to and for* patients, to what nurses *do with* patients, thus envisioning nursing as an interactive and collaborative process between nurse and patient.<sup>18,19,23</sup>

In the Theory of Interpersonal Relations, Peplau describes nursing as a significant, therapeutic and interpersonal

Figure 4.1 The Interactive Care Model<sup>16</sup>



process focused on a common goal between nurse and patient and following a series of sequential patterns.<sup>18</sup> Peplau identified three phases of the therapeutic nurse-patient relationship. The first phase is orientation, during which the nurse and patient meet as strangers and begin to identify patient needs. The second phase is the working phase, during which the nurse and patient begin to address identified needs with specific planned interventions. And finally, during the termination phase, the patient no longer needs the professional services of the nurse and the relationship begins to come to a close.<sup>18, 19</sup>

**Original Study**

The purpose of the original 2013 Beeber et al. study,<sup>20</sup> Reducing Depressive Symptoms in Low Income Mothers (often referred to as the HILDA study, in honor of Hildegard “Hilda” Peplau), was to engage and help mothers manage their depressive symptoms and life issues, increase their social supports, and help them enact effective parenting techniques.<sup>20</sup> Using a combination of an evidence-based treatment for depression, Interpersonal Psychotherapy (IPT), and a symptom-specific parenting component, advanced practice psychiatric mental health nurses attempted to reduce mother’s depressive symptoms and improve interaction with their children (20). Accordingly, the nurses carefully documented the specific strategies they used to engage mothers in the intervention, providing fertile ground for an in-depth analysis of how to engage persons from traditionally underserved populations in their health and mental health care. The intervention study used IPT focused on the mother’s interpersonal issues factoring into the genesis and maintenance of their psychological distress,<sup>27</sup> aiming for symptom resolution and improved interpersonal functioning.<sup>20</sup> Study participants were recruited from Early Head Start Programs, a federal child enrichment program that provides early, intensive, comprehensive and continuous child development and family support services to low-income pregnant women, infants, toddlers and their families.<sup>28</sup> Mothers eligible to participate in the original

intervention study scored 16 or above on the Center for Epidemiological Studies Depression Scale (CES-D), indicative of the presence of significant depressive symptoms.<sup>29</sup>

**Secondary Analysis**

For this paper, we completed a secondary analysis of data collected for Reducing Depressive Symptoms in Low Income Mothers (NIH R01MH065524), a randomized controlled trial of 226 mothers recruited from six Early Head Start programs in the southeastern and northeastern US.<sup>20</sup> Demographic data for this study and parent study can be found in Table 1.

Mothers were recruited from upstate New York and North Carolina Early Head Start centers. The sample for this study was comparable in demographic data to the parent study (Table 1). Two-thirds of the mothers in the sample were Black. About one-third were married, had previous exposure to violence, and categorized their child or children as having a developmental disability. Half of the mothers in this study were employed.

Mothers with positive screening for depressive symptoms were eligible to participate. Mothers in the intervention group received ten weekly face-to-face, home-delivered Interpersonal Psychotherapy (IPT) sessions from advanced practice psychiatric mental health nurses focusing on mothers’ current problems and how they were coping with their life circumstances. The same nurse visited the same mother for each of the ten visits, which lasted 1-1.5 hours, working with her on ways to explore her feelings and to address and improve her depressive symptoms.

After every session, the nurses recorded narrative notes, providing detailed data and perspectives about the home setting and atmosphere, interactions and specific

**Table 1. Demographic and Other Data on Current Study (n=30) and Hilda Study Participants (n=251)**

Demographic Variable	Current Study (n)	Current Study (%)	Hilda Study (n)	Hilda Study (%)
Northeast	10	33.3	87	34.7
Southeast	20	66.7	164	65.3
White	7	23.3	64	25.5
Black	23	76.6	156	62.2
Latino	0	0	8	3.2
Married	10	33.3	53	21.1
Exposure to violence	9	30	35	14.1
Child health disability	9	30	139	55.4
Employed	16	53.3	109	43.6

**Table 2. Nursing Narrative Notes Measures**

Mothers' level of adherence	0- Not at all engaged 1- Engaged very little 2- Somewhat engaged	3- Engaged 4- Highly engaged
Phase of the nurse-patient relationship	1- Orientation 2- Working 3- Termination	
Interactive Care Model Core processes	1) assessing a person's capacity for engagement 2) exchanging information and communicating choices 3) planning 4) determining appropriate interventions 5) evaluating	
Interactive Care Model Partnership roles	whole person, intentional presence, collaborating, coaching, caring and trusting relationship, navigating	

exchanges with the mothers and family, and specific interpersonal strategies and techniques used to establish a relationship, engage, and retain the mothers in the intervention. Along with detailed weekly narratives, nurses also indicated which phase (orientation, working, termination) of the interpersonal relationship the nurse and mother were in. In addition, nurses also assigned mothers an adherence rating indicating how well the mothers were engaging in the intervention. The adherence ratings were based on a 4-point Likert scale 0- not engaged at all, to 4- being highly engaged.<sup>20</sup> See Table 2.

### Study Design

For this part of the larger mixed methods design, we used a descriptive quantitative design. In a previous paper, we took a qualitative approach to map out and describe how the Interactive Care Model Core processes of patient engagement (assessing a person's capacity for engagement, information exchange and communicating choices, planning, determining appropriate interventions, and evaluating) and the Interactive Care Model Partnership roles (whole person, intentional presence, collaborating, coaching, caring and trusting relationship, navigating) guided how nurses engaged the depressed mothers.<sup>17</sup> In this paper, we worked from the qualitative data and completed a quantitative analysis to elucidate when and how often the engagement strategies were used.

### Data Analysis

Each of the 226 cases were reviewed and cases were organized using the patient adherence ratings assigned by the visiting nurse. Using the adherence ratings and their patterns as a proxy for mother's engagement, the investigator created three categories of mothers' level of engagement (highly engaged; fluctuating engagement; minimal engagement). The minimally engaged group

scored primarily 0's (adherence level - not at all engaged) and 1's (adherence level = engaged very little) throughout the intervention. Scores in the fluctuating engagement group varied, ranging from 0-4 with no distinct pattern throughout the intervention. Finally, the highly engaged group included mothers who scored 3's and 4's throughout the entire intervention. From those three groups, ten cases were randomly selected from each group for analysis (10 from highly engaged group, 10 from minimally engaged group, and 10 from fluctuating engagement group). In taking a stratified purposeful sample of cases with varying adherence ratings, our intention was to capture information-rich cases related to patient engagement and examine major variations in engagement skills, strategies, and outcomes.<sup>30,31</sup> Comparison and maximum variation sampling are time-honored, classic ways to assess for similarities and differences and to test conclusions.<sup>32</sup>

Using MAXQDA, a mixed methods software program, we tracked engagement strategies used by nurses, and compared similarities and differences in engagement strategies within and across cases. We analyzed data from the adherence ratings using one-way between-subject ANOVA to assess for differences in engagement strategies used in different phases of the interpersonal relationship and with mothers across varying levels of engagement.

### Results

#### *Demographic Differences between Nurses and Mothers*

Before addressing nurses' perceptions of engaging mothers in a mental health intervention, understanding the demographic differences between the two groups of women was important contextually as demographic

**Table 3. Demographics and Other Characteristics of Nurses and Mothers**

Demographic and other characteristics	Nurses (n=16)	Mothers (n=30)
Average age	53	26.3
Education (years of school)	19	12
Work Status		
Working full or part time	16	14
In School		6
Ethnicity		
Black/African American	1	19
White	15	8
Mixed/Native American/ Native Hawaiian/ Pacific Islander/ Asian	0	2
		1
Living without Spouse/Partner	N/A	18
Maternal CES-D score	N/A	26.1
Depression Status	N/A	
Maternal Diagnosis Major Depressive Episode		7.5
Minor Depression		9.6
Child with Chronic Health condition or developmental delay, behavioral issues	N/A	17.4

differences between nurse and mother could possibly present significant barriers to engagement (Table 3). We found differences between nurses (n=16) and mothers (n=30) on age, education, and ethnicity. Fifteen of the sixteen advanced practice mental health nurses were White; their average age was 53, and all had formal advanced education (19 years or more). In contrast, mothers in the study were largely African American (23/30), with an average age of 26 (range 15-44), having an average of 12 years of education (range from 6-19 years).

**Setting**

Most nurse-mother meetings were held in the kitchens, living rooms, and bedrooms in the mothers’ homes. One mother lived with her infant in the Salvation Army homeless shelter; two nurse-mother dyads met in local coffee shops; and one dyad met in the nurse’s car, which served as a private space and escape from the many distractions in the home setting.

**Variation of Engagement Skills by Phases of the Nurse-Client Relationship**

*Research Question 1: How do nurses’ descriptions of the engagement skills and strategies they use vary across phases of the nurse-patient relationship?*

To respond to this question, we used quantitative data to test if the nurse’s descriptions of the engagement skills and strategies they used varied across the three phases of the nurse-patient relationship. Using one-way ANOVA, we found statistically significant differences between the Interactive Care Model’s core components (n=12) used by nurses and the three different phases of the nurse mother relationship ( $F(2,33) = 15.6, p = .00002$ ).

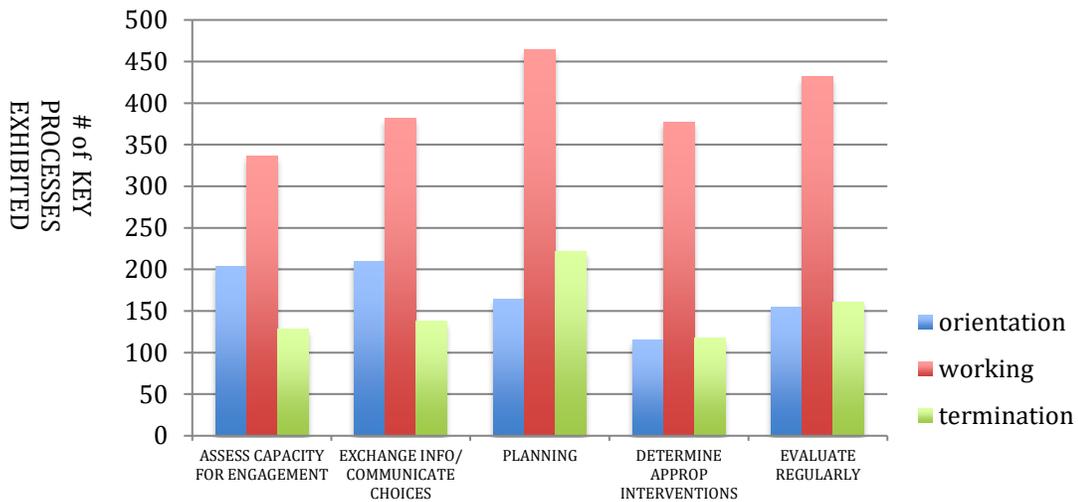
A Tukey post-hoc test showed the mean number of Interactive Care Model key processes and partnership roles assigned in the nursing narratives were significantly different ( $p < .001$ ) between the orientation phase (phase 1) and the working phase (phase 2); however, we found no statistically significant differences between the orientation phase and termination phase (phase 3). Additionally, we found statistically significant differences ( $p < .001$ ) between the working phase and the termination phase. Figures 2 and 3 show the variation in the Interactive Care Model’s five key processes and seven partnership roles by phase of the interpersonal relationship.

**Variables of Engagement Skills by Nurse-perceived Adherence Levels**

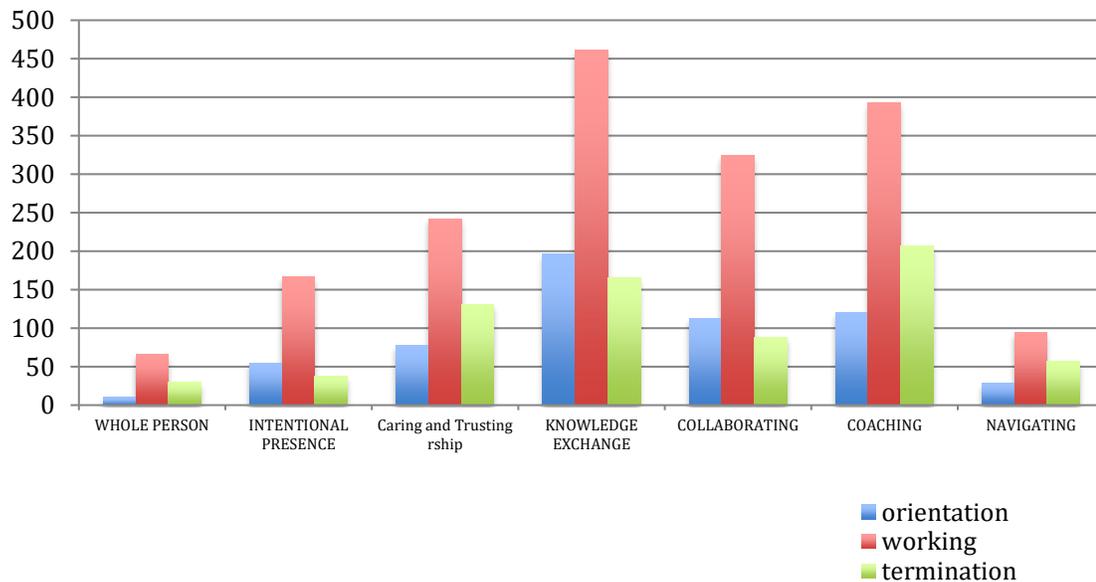
*Research Question 2: How do nurses’ descriptions of their engagement skills and strategies differ among mothers with varying adherence levels (highly engaged, fluctuating engagement, minimally engaged)?*

The second research question tested whether nurses used different engagement skills and strategies when they perceived variations adherence levels (i.e., highly engaged, fluctuating engagement, and minimally engaged). Based on their summative adherence ratings, we grouped the mothers into one of three possible groups (minimally engaged, fluctuating engagement, highly engaged). The minimally engaged group scored primarily 0’s (adherence level - not at all) and 1’s (adherence level = very little) throughout the intervention. Scores in the fluctuating engagement group varied, ranging from 0-4 with no distinct pattern throughout the intervention. Finally, the

**Figure 2. Frequency of ICM Key Processes Implemented in each IPR Phase**



**Figure 3. Frequency of ICM Partnership Roles Implemented in each IPR Phase**



highly engaged group included mothers who scored 3's and 4's throughout the entire intervention. Interestingly, we detected no statistically significant differences between the 12 Interactive Care Model codes and levels of mother's engagement (minimal, fluctuating, high) as determined by one-way ANOVA.

However, when we examined the ICM's five key processes and seven partnership roles, statistical differences were found when analyses were run separately. Although there were no statistical differences found between the seven partnership roles and mother's level of engagement, we

found statistical differences between the five key processes of the Interactive Care Model and level of mother's engagement as determined by one way ANOVA  $F(2,12)=6.78, p=.011$ . A post-hoc Tukey test showed significant differences between the five key processes of the ICM in mothers in the minimally engaged group ( $201.2 + 30.1, p = .008$ ) when compared to mothers within the fluctuating engagement group ( $289 + 40.6, p = .008$ ). Nurses' engagement strategies were significantly limited with the minimally engaged group when compared to the fluctuating engagement group. Although nurses tried to engage all the mothers in the intervention, nurses

perceived mothers with minimal engagement as non-responsive to the nurse’s engagement efforts and appeared to thwart nurses’ additional efforts.

**Variations in Client Engagement and Duration of the Orientation Phase of the Nurse-Client Relationship**

*Research Question 3: What is the relationship between the level of mother’s engagement and the length of time spent in the beginning (orientation) phase of nurse-patient relationship prior to problem-specific (working) phase?*

The third research question asked if a relationship existed between the level of mother’s engagement and length of time spent in the orientation phase of the nurse-mother relationship. Examining correlations between the adherence levels and the relationship phase produced evidence of linkages between mothers’ level of engagement and the length of time spent in the orientation phase prior to the problem-specific working phase of the interpersonal relationship. When comparing non-engaged and engaged mothers in terms of percentage of time spent in the orientation phase, mothers who were not at all engaged (scoring 0 on weekly adherence level) in the intervention spent more than twice the time in the orientation phase (37% of total visits) compared to mothers with higher levels of engagement (3.7-14.8% of total visits). See Figure 4.

**Nurse Generated Engagement Strategies and Mother’s Level of Engagement**

*Research Question 4: What are other nurse-generated engagement skills and strategies used to engage women from traditionally underserved population?*

Finally, in addition to the five ICM key processes and seven-partnership roles, the nurses assigned their own specific relationship-based strategies used to engage

mothers. The 12 most frequently reported nurse-generated codes were: (1) questioning, (2) contact, (3) assessment, (4) encouragement, (5) reflection, (6) exploration, (7) control of intensity, (8) empathy, (9) social conversation, (10) praise, (11) suggestion and (12) social rituals.

**Discussion and Conclusion**

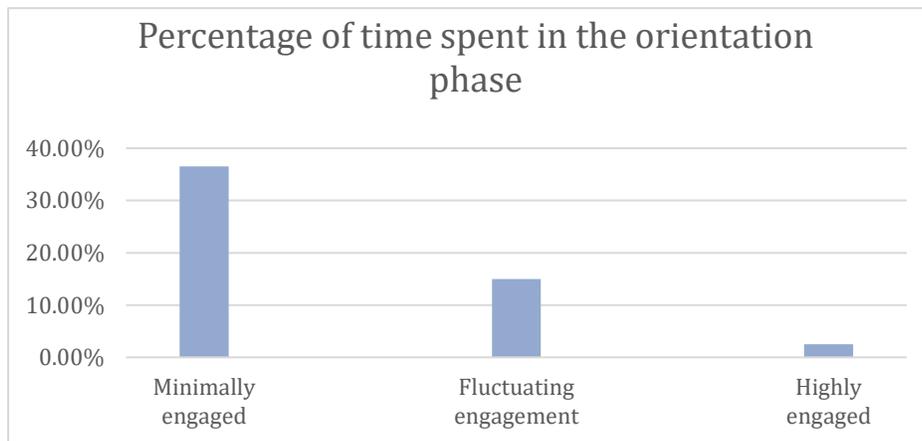
In this study, we examined the timing, rhythm, and intensity of how patient engagement strategies were operationalized in a mental health and parenting intervention. Engaging women from a traditionally underserved population was a complex and multifaceted endeavor requiring thoughtful timing and persistence. As such, upon analysis differing intensities and frequencies of patient engagement key processes and key provider roles emerged, shedding light on the process of exactly how advanced practice mental health nurses engaged low-income depressed mothers of infants and toddlers.

Combining the Interactive Care Model (13) with Peplau’s Theory of Interpersonal Relations(15,16) allowed us to examine the phenomena of patient engagement more thoroughly than either framework allowed separately. Although the ICM was validated by the nursing narrative data (14), the model does not address phases of the engagement relationship, or the differing intensities and frequencies of the key processes and partnership roles and the influence of repeated, intensive contact between the nurses and mothers.

**Phase of Relationship**

Consistent with the rhythm and flow of Peplau’s Theory of Interpersonal Relations (15), the findings of this analysis suggest the ICM concepts and engagement strategies used by nurses differed between the phases of the interpersonal relationship and as a function of the mothers’ various

**Figure 4. Mother’s Level of Engagement and Percentage of Time Mother-Nurse Dyad Spent in Orientation Phase**



levels of engagement. For example, assessing the mother's capacity for engagement and exchanging information was present throughout the intervention but was highly concentrated in the orientation phase of the nurse-mother interpersonal relationship. The demographic differences between nurses and mothers could have played a role in exchanging information, because each had different expertise and life experience. In addition, all the concepts of the ICM and all of the nurse-generated strategies increased during the working phase. This suggested that engagement strategies must be sustained and intensified to retain mothers in the intervention. Finally, the decline of engagement strategies in the termination phase parallels the intervention strategy of gradual disengagement that nurses did to prepare the mothers for the end of the relationship and the intervention.

### ***Level of Engagement***

Engagement skills and strategies used by nurses were significantly limited with mothers who were minimally engaged and were significantly higher with the highly engaged mothers. Mothers' lack of engagement simply did not allow the nurses opportunity to use their skills. Despite nurses' best and repeated efforts, some women did not engage. Thus, time spent in the orientation phase demonstrated the reciprocal effect that engagement may have on the skills and strategies used. Mothers who were less engaged spent more time in the orientation phase than mothers who were more engaged, underscoring the importance of giving mothers time and space to engage, and the need to adjust timelines for patient engagement and other key tasks that need to be accomplished.

Notably, the key processes of Planning and Determining Interventions were used less with mothers in the minimally engaged group compared to the group with fluctuating engagement. However, no differences were found between the ICM's seven partnership roles and mothers' level of engagement, suggesting that data supporting the seven partnership roles of the Interactive Care Model spanned across all levels of the mothers' engagement. These findings provide an initial understanding of the core components of patient engagement practices on which to build upon and tailor. Therefore, the results of this analysis suggest that engagement is a fluid and dynamic concept, requiring different engagement skills and strategies, operating at different intensities and frequencies dependent upon contextual factors, phase of interpersonal relationship, and client's level of engagement.

### ***Repeated, Intensive Contact***

Mothers and nurses partnered week after week for a prescribed 10 weeks, creating the time and space to potentially establish a relationship, build trust and rapport. The repetitive nature of the nurse's visits and active pursuit and persistence of scheduling and rescheduling demonstrated client centered care. These actions were in

stark contrast with the traditional provider-centric paradigm, often characterized by episodic care delivered in multiple care settings that disengage clients from their natural world, and that place patients in the role of pursuing providers, accommodating providers' schedules and preferences, and having significant lag times between visits. Thus, actively pursuing clients and having recurring contact with them may have great utility as effective modifications in health care delivery for difficult-to-engage clients.

Findings from this study add to the knowledge base of patient engagement by providing empirical data as to how patient engagement was operationalized with a traditionally underserved population. This study helped illuminate the rhythm and flow of patient engagement by nurses, who used multiple expressions of specific engagement strategies at different times, in different intensities and frequencies based on the phase of the interpersonal relationship, mothers' level of engagement, and other contextual and influential factors. Thus, findings from this study provide valuable guidance as to how the process of patient engagement is executed in clinical practice to better guide providers as to how to engage their patients more fully in their health and health care.

### **Implications for Nursing Practice**

This study was an examination of engagement extremes, in which the advanced practice mental health nurses – experts in non-verbal and verbal communication – worked to engage mothers whose backgrounds likely varied from the nurses' backgrounds. Understanding what nurses needed to do in order to engage with a population that may be reluctant to engage can illuminate core tenets of patient engagement that may be applicable to other client-nurse relationships, even those that exist via telemedicine in an intra- and post-COVID world.

This study begins to illuminate how patient engagement is not a prescribed endeavor. Patient engagement requires assessment, knowledge exchange, planning, interventions and evaluation, during all different stages of the therapeutic relationship and in different intensities to facilitate patients' engagement. Moreover, patient engagement requires providers to be flexible in their roles in order to facilitate engagement. Findings from this study can help inform how to best engage persons from traditionally underserved populations by providing access, time, and frequent visits, thereby partnering with their providers to engage more fully in their health and health care.

## References

1. Groves, P., et al. "The "big data" revolution in healthcare. Accelerating value and innovation. McKinsey & Company. 2013." (2016).
2. Hibbard, Judith H., and Jessica Greene. "What the evidence shows about patient activation: better health outcomes and care experiences; fewer data on costs." *Health affairs* 32.2 (2013): 207-214.
3. Shaller, Dale. *Patient-centered care: What does it take?*. New York: Commonwealth Fund, 2007.
4. Forbat, Liz, et al. "Engaging patients in health care: an empirical study of the role of engagement on attitudes and action." *Patient education and counseling* 74.1 (2009): 84-90.
5. Dykes, Patricia C., et al. "Prospective evaluation of a multifaceted intervention to improve outcomes in intensive care: the promoting respect and ongoing safety through patient engagement communication and technology study." *Critical care medicine* 45.8 (2017): e806-e813.
6. Fowles, J. B., Terry, P., Xi, M., Hibbard, J., Bloom, C. T., & Harvey, L. (2009). Measuring self-management of patients' and employees' health: Further validation of the Patient Activation Measure (PAM) based on its relation to employee characteristics. *Patient Education and Counseling*, 77(1), 116-122.
7. Greene, J., Hibbard, J. H., Sacks, R., Overton, V., & Parrotta, C. D. (2015). When patient activation levels change, health outcomes and costs change, too. *Health Affairs*, 34(3), 431-437.
8. Greene, J., Hibbard, J.H. (2012). Why does patient activation matter? (2012). An examination of the relationships between patient activation and health-related outcomes. *Journal General Internal Medicine*, 27(5):520-6
9. Hibbard, J.H., Mahoney, E.R., Stockard, J., Tusler, M. (2005). Development and testing of a short form of the patient activation measure. *Health Serv Res*. 40(6 Pt 1):1918-30
10. Ivey, Susan L., et al. "Patient engagement in ACO practices and patient-reported outcomes among adults with co-occurring chronic disease and mental health conditions." *Medical care* 56.7 (2018): 551.
11. Lorig, K., Ritter, P. L., Laurent, D. D., Plant, K., Green, M., Jernigan, V. B. B., & Case, S. (2010). Online diabetes self-management program A randomized study. *Diabetes Care*, 33(6), 1275-1281
12. Rask, K.J., Ziemer, D.C., Kohler, S.A., Hawley, J.N., Arinde, F.J., Barnes, C.S. (2009). Patient activation is associated with healthy behaviors and ease in managing diabetes in an indigent population. *Diabetes Education*, 35(4): 622-30.
13. Rogvi, S., Tapager, I., Almdal, T. P., Schiøtz, M. L., & Willaing, I. (2012). Patient factors and glycaemic control—associations and explanatory power. *Diabetic Medicine*, 29(10), e382-e389.
14. Shortell, Stephen M., et al. "A multilevel analysis of patient engagement and patient-reported outcomes in primary care practices of accountable care organizations." *Journal of general internal medicine* 32.6 (2017): 640-647.
15. Wolever, R.Q., Webber, D.M., Meunier, J.P., Greeson, J.M., Lausier, E.R., Gaudet, T.W. (2011). Modifiable disease risk, readiness to change, and psychosocial functioning improve with integrative medicine immersion model. *Alternative Therapies Health Medicine*, 17(4):
16. Drenkard, Karen, et al. "Interactive care model: A framework for more fully engaging people in their healthcare." *Journal of Nursing Administration* 45.10 (2015): 503-510.
17. Baker, M.J., Black, B.P., & Beeber, L.S. (2018). Rules of engagement: Strategies used to enlist and retain underserved mothers in a mental health intervention. *Patient Experience Journal*, Beryl Institute.
18. Peplau, Hildegard E. "Interpersonal relations in nursing." *AJN The American Journal of Nursing* 52.6 (1952): 765.
19. Peplau, H. E. (1991). *Interpersonal relations in nursing: A conceptual frame of reference for psychodynamic nursing*. Springer Publishing Company.
20. Beeber, Linda S., et al. "Parenting enhancement, interpersonal psychotherapy to reduce depression in low-income mothers of infants and toddlers: A randomized trial." *Nursing research* 62.2 (2013): 82.
21. White paper 2019- Other tools based on the Interactive Care model (Get Well Inpatient, Get Well Rounds, Get Well Loop, and Get Well Practice) have led to positive improvements in patient satisfaction scores and improved readiness for discharge in hospital settings, veterans affairs, and primary care offices
22. Swartwout, Ellen, et al. "The design and testing of the psychometric properties of the person engagement index instrument to measure a person's capacity to engage in health care." *Journal of Nursing Measurement* 26.2 (2018): 278-295.
23. Black, Beth. *Professional nursing E-Book: Concepts & challenges*. Elsevier Health Sciences, 2019.
24. Dean, Marleah. "Communicating in patient-provider relationships." *Storied Health and Illness: Communicating Personal, Cultural, and Political Complexities* 53 (2016).
25. Peternelj-Taylor, Cindy A., and Olive Yonge. "Exploring boundaries in the nurse-client relationship: professional roles and responsibilities." *Perspectives in Psychiatric Care* 39.2 (2003): 55-66.
26. Sheldon, Lisa Kennedy. *Communication for nurses: Talking with patients*. Jones & Bartlett Learning, 2009.
27. Stuart, Scott, and Michael Robertson. *Interpersonal psychotherapy 2E a clinician's guide*. CRC Press, 2012.
28. Shanti, Caroline. "Engaging parents in early head start home-based programs: how do home visitors do

- this?." *Journal of evidence-informed social work* 14.5 (2017): 311-328.
29. Eaton, William W., et al. "Center for Epidemiologic Studies Depression Scale: review and revision (CESD and CESD-R)." (2004).
  30. Palinkas, Lawrence A., et al. "Purposeful sampling for qualitative data collection and analysis in mixed method implementation research." *Administration and policy in mental health and mental health services research* 42.5 (2015): 533-544.
  31. Patton, Michael Quinn. "Qualitative research and evaluation methods. Thousand Oaks." *Cal.: Sage Publications* (2002).
  32. Miles, Matthew B., A. Michael Huberman, and Johnny Saldaña. "Qualitative data analysis: A methods sourcebook. 3rd." (2014).