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Family Engagement in "Voluntary" Child Welfare Services: Theory and Empirical Evidence from Families under Differential Response Referrals in California.[1]

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Abstract

The growth of the Differential (or Alternative) Response (DR) paradigm in child welfare services, which involves the provision of preventative services for families at moderate to high risk for child maltreatment, highlights the need for further study of its theoretical foundations. This paper explores two of the central principles of the DR paradigm: "family engagement" and "voluntary participation." A theoretical model that draws upon literature from the fields of child welfare and psychology of motivation is presented to describe family engagement levels in voluntary settings. Analysis of data from 76 Family Resource Centers across 14 California counties suggests that - controlling for risk factors, demographic characteristics, and county level fixed effects - clients referred through the DR process into the "voluntary" Paths exhibit lower participation levels than self-referred (or completely voluntary walk-in clients) and clients *referred* through the DR process into the "non-voluntary" Path; with the last 2 groups exhibiting similar levels of participation. These findings are consistent with the proposed theoretical model and highlight the need to consider voluntary participation in a prevention setting in a nuanced and non-linear fashion. Implications for practice and future research are discussed.

Key words:

Differential Response, Alternative Response, family engagement, voluntary participation, prevention, child maltreatment, child abuse, neglect

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Introduction

The importance of client engagement in child welfare practice has been recognized in the field of social work since the 1950s (Roberts & Nee, 1974). Further, there is a widespread consensus that client participation, although not at an end goal in itself, is "crucial for success" across a wide range of child welfare interventions (Littell & Tajima, 2000). While client engagement is widely accepted as a central tenant of social work practice, little is known about the essential elements of client participation (Littell, Alexander, & Reynolds, 2001) or the effects of intervention approaches designed to increase family engagement (Yatchmenoff, 2005). The emergence of the Differential Response (DR) approach to child welfare, which includes "family engagement" and "voluntary participation" as two of its central tenets (Waldfogel, 1998), not only highlights these knowledge gaps on family engagement in the field of child welfare in general, but has increased the urgency for further study on the relationship between perceptions of voluntary participation and engagement.

Proponents of the DR approach suggest that when families are given the choice to participate in services, "they are more likely to develop a constructive partnership with service providers" (Merkel-Holguin, Kaplan, & Kwak, 2006 p. 22), yet there is little empirical or theoretical evidence of this connection in the context of child welfare cases where the threat of child removal is present even when the services are nominally "voluntary" (Conley, 2007). Most child welfare studies in this area explore factors explaining family engagement in voluntary settings (Daro, McCurdy, & Nelson, 2005; McGuigan et al., 2003; Wagner et al., 2003) or in non-voluntary settings (Littell & Tajima. 2000; Littell et al. 2001; Yatchmenoff, 2005) separately and the degree of how voluntary a service is has not been explored empirically or theoretically as a causal factor of family engagement as proponents of DR suggest.

This paper contributes to the discussion of family engagement under voluntary settings, presenting a theoretical model and data from 76 Family Resource Centers (FRC) in 14 California Counties. The results shed light on the connection between engagement outcomes, and client perceptions of how voluntary a service is in the light of the proposed model. These results, in turn, raise important implications for future research and practice in the field of child welfare under the rapidly emerging DR paradigm. The paper is organized as follows: the second section provides a brief overview of key literature on client engagement in the child welfare field and proposes a model of engagement that describes behaviors and attitudes expected from clients

receiving services in a voluntary fashion. The third section presents an empirical analysis that compares client engagement levels across different types of referrals varying from voluntary to non-voluntary. The fourth section offers a discussion of the findings and their implications for practice related to voluntary referrals as well as future research directions.

Family Engagement in Voluntary Settings

The concept of family engagement has eluded a unique definition in the literature. This lack of a singular definition is evidenced by the wide variation in how the concept has been operationalized in the empirical literature (Littell et al., 2001). Studies that operationalize engagement tend to use different combinations of measures of "quantity" of service usage (including attendance, retention, and completion) (Atkinson & Butler, 1996; Claus & Kindleberger, 2002; McCurdy et al., 2003) and measures of "quality" of engagement (including cooperation, participation, connection, and relationships) (Korfmacher et al., 2007; Plasse, 2000; Robinson et al., 2002).

While empirical specifications of engagement vary, the literature points to a consensus regarding the multidimensionality of the concept (Fantuzzo et al. 2000; Korfmacher et al., 2008; Littell et al., 2001; McGowan, 1997; Yatchmenoff, 2005), and the understanding that factors affecting engagement are multileveled in nature where client-level and environmental factors interact in a dynamic manner (Littell & Tajima, 2000; Littell et al., 2001; Daro et al., 2005; McGuigan, 2003). This consensus suggests that a model of family engagement must begin from the premise that attitudes and behaviors congruent with program goals and expectations cannot be captured by a single dimension and that these attitudes and behaviors are a function of interrelated and dynamic internal and external (environmental) factors.

In one of the most recent studies of its kind, Yatchmenoff (2005) proposes four client-centered independent dimensions that comprise the client engagement construct in non-voluntary settings: "receptivity", which refers to a client's openness to receive help; "buy-in", which involves a combination of beliefs about the positive effects of participation and the resources invested in participation; and "working relationship" and "mistrust", which refer to a client's level of communication with a case manager and beliefs about the case manager's intentions, respectively. These dimensions can be employed to explain client engagement in voluntary

settings by incorporating expected client behaviors and attitudes under different combinations of these dimensions using findings from the field of psychology of motivation.

Based on the work of Ambrose et al., (2010) and Ford (1992), figure 1 presents the various behaviors and attitudes that may result under different levels of the receptivity, buy-in, working relationship with agency, and mistrust. The behaviors falling into each category in figure 1 follow from the principle that "goals" are the guiding force behind motivated behavior (Elliot & Fryer, 2008). Viewed in this way, the engagement dimension of receptivity can be understood as a function of the subjective value placed on a goal that determines the readiness to act (i.e. engage in services) (Wigfield & Eccles, 2000). It is important to note that receptivity by itself is a multidimensional construct that includes, at the very least, a temporal dimension ranging from "problem recognition" to "intention to change" (Littell & Girvin, 2005) and individual level characteristics involving perceptions of self-competency (Eccles & Wigfiled, 2002) , sense of control (Ross & Mirowsky, 2013), and volition (Corno & Kanfer, 1993; Corno, 2011).

The dimension of buy-in can be understood as a function of expectancies about achieving a goal by following a series of steps that are within reach (Carver & Scheier, 1998). The Therapeutic (Working) Alliance (Bording, 1979) considers expectancies about goals and tasks as independent and necessary conditions for a strong alliance between patient and therapist (Bordin, 1979; Munder et. al. 2010). The agreement on goals refers to a common awareness of program goals between client and case worker; in which the client believes that the goals are relevant to her current situation as well as congruent with her feelings of identification with them (Horvath, 1981). Agreement on the tasks, on the other hand, refers to the common understanding between client and case worker regarding the nature of tasks demanded of each of them, and the feeling that they are reasonable, and relevant to the agreed upon goals (Horvath, 1981).

The final dimensions of client's "working relationship with agency" and "mistrust" in Yatchmenoff's model are a function of a client's perceptions of how supportive the agency environment is of his/her goals (Ambrose et al., 2010). While Yatchmenoff, (2005) finds that working relationships and trust can be considered separately, the model presented in figure 1 considers them as a single dimension. This is consistent with the Therapeutic (Working) Alliance measures in which working relationship and trust are considered a composite construct of "affective bond" between client and worker (Munder, 2010). Cunningham et al. (2008) find

support for a one-dimensional construct capturing "bond with staff" as well. Combining the three dimensions of buy-in, receptivity, and perceptions about agency support to predict attitudes and behaviors, figure 1 presents receptivity as a crucial dimension for a client to exhibit a behavior consistent with high engagement. Clients that exhibit low receptivity will be less likely to be engaged regardless of their perceptions on how supportive the agency is or their level of buy-in. Thus, clients with low receptivity will be likely to ***reject*** the services if they have low buy-in, or show an ***evasive*** behavior if their level of buy-in is high.

The perceived level of support from an agency is also shown as a critical factor in explaining behavior consistent with engagement. As proposed in figure 1, clients who show high receptivity and high buy-in may show a ***defiant*** behavior if they perceive that the agency/case manager is not supportive of their goals (i.e., poor working relations and high mistrust). In addition, clients that are receptive to change, but perceive low support from the agency/case manager, and have low "buy-in" may exhibit attitudes consistent with feelings of ***hopelessness*** towards achieving their goals.

Behaviors consistent with high engagement will likely be observed when the client is receptive to services, and has a positive perception of agency support. For these clients, the level of buy-in may determine if the engagement is fragile or strong. As shown in figure 1, clients that exhibit high receptivity for change and perceive positive working relationships with the agency, but feel that the process may not lead them to the desired goal, will tend to exhibit ***fragile engagement.*** On the other hand, clients that exhibit high receptivity, positive perceptions of agency support and high buy-in will tend to show behaviors consistent with ***strong engagement***.

The behaviors and attitudes presented in figure 1 offer important insights when applied to predicting engagement in voluntary and non-voluntary services. Most importantly, the model suggests that voluntary services are likely to be attended *only* by individuals with high receptivity for change *and* positive perceptions about agency support; and for these clients, those with higher levels of buy-in will exhibit the highest levels of engagement.

Conversely, non-voluntary services are likely to include the whole range of client behaviors presented in figure 1. In other words, the model implies that, on the aggregate, the level of engagement for clients attending a service in a voluntary fashion should be expected to be higher than those attending a service in a non-voluntary fashion, *because* of client self-

selection in terms of higher levels of receptivity, buy in, and positive perceptions of agency support.

Study Setting

The theoretical model presented in the previous section suggests that the average engagement level for clients who attend a service voluntarily would differ from the engagement level for clients who attend the same service on a non-voluntary basis. This difference would be explained by differences in the composition of clients attending the service, with those attending on a voluntary basis being more likely to have higher levels of receptivity for change, buy-in, and positive perception of agency support than those attending the service on a non-voluntary basis. When applying this logic to families under DR referrals, the model suggests that if families under a DR referral perceived their referral to be completely voluntary, they would be expected to exhibit, on average, the same engagement levels as those of similar families attending the same service, voluntarily without a referral (i.e. they would be expected to have the same levels of receptivity, buy-in and positive perceptions about the agency). Conversely, if DR referrals exhibited lower levels of engagement than similar families attending the same service in a completely voluntary fashion, that would suggest that DR referrals were, on average, not perceived to be voluntary (i.e. include families with lower levels of receptivity, buy-in, or positive agency perceptions).

In order to test empirically if DR referrals tend to perceive their referrals as voluntary, this paper uses data from 76 Family Resource Centers (FRCs) located in 14 California counties. Together, these FRCs provided services and collected data on 3,566 families that had at least two assessments or had cases closed between October 2009 and February 2013. Each of the FRCs collected data on client families using the Family Development Matrix (FDM) system, which is an assessment tool designed by the Matrix Outcomes Model (MOM) (2012) sponsored by the California Office of Child Abuse Prevention (MOM, 2012) that allows agencies to track clients on several indicators including demographic data, 20 indicators of children and family wellbeing, and perceived level of family engagement during the case management (California Department of Social Services, 2012).

Under the FDM protocol, families seeking services from an FRC complete an "Empowerment Plan" that requires them, in close communication with their case manager, to evaluate areas of strengths and concerns and identify interventions and services aligned to 20

wellbeing indicators. These assessments are subsequently used to create action plans that involve direct services, and/or referrals to services from other community agencies (Endres, 2012)[3]. Ninety days after an initial assessment, the family and their caseworker complete a second one to assess changes in each of the FDM indicators. At this time, the caseworker is required to complete an assessment of the family's level of engagement using a series of ordinal scales (Endres, 2012b). In the event that a family does not return for a second assessment within 6 months, the caseworker completes a final assessment of the family's engagement up to the time of last contact and closes the case (Endres, 2012b).

The FRCs in the study collected data on clients attending services with DR referrals and clients with no known DR referrals. The latter involved clients who receive case management services on a walk-in basis and therefore are assumed to be attending the service on a completely voluntary basis (i.e. no involvement from child protective services)[4]. The former, on the other hand, vary on the degree to which their services were perceived to be voluntary depending on their particular case and how the child welfare agency made their referral.

In principle, the California version of the DR model offers three pathways that vary in degree of how voluntary they are for clients, depending on an initial assessment of risks: Path 1, the "Community Partnership Path," involves cases where families are deemed to require help, but the reported allegations do not meet the statutory definitions of abuse and neglect or where there is low risk of harm to the child; Path 2, the "Child Welfare Services and Community Team Path," is chosen when reports meet statutory definitions of abuse and neglect, but the child is deemed to be at low to moderate risk of harm (under Path 2, families work with representatives of county child welfare agencies and community-based organizations to address family needs on a voluntary basis); and Path 3, the "Child Welfare Services Response," mirrors the child welfare system's traditional response, which is chosen when children are not safe and where the risk for continued abuse or neglect is assessed as moderate to high. Under this Path 3, caseworkers closely follow families and work with community agencies to provide focused services. Services

[3] During the empowerment plan, a case worker and the family assess the family's current situation and classify its status for each indicator as "in Crisis", "At risk", "Safe" or "Self-Sufficient" (Endres, 2012b).

[4] It is important to note that the only information available for the walk-in cases is that they did not come to the FRC with a DR referral from Child Protective Services. They may have been referred by other agencies such as schools or childcare providers, yet because there is no direct perceived threat from Child Protective Services we consider their involvement in case management voluntary. Interviews with FDM collaborative coordinators from each county included in the study corroborated our assumption.

for clients under Path 3 are not voluntary, as clients may face court orders or possible criminal charges (Conley & Berrick, 2010).

While it is tempting to assume that Path 1 clients perceive the referral as voluntary, Path 3 clients perceive the referral as non-voluntary and Path 2 clients lie somewhere in between Path 1 and Path 3, some authors question the voluntary nature of referrals done by a Child Welfare agency regardless of the Path. They warn that even if clients may "voluntarily" choose to accept or refuse services, in most cases they are warned that in cases of refusal, child protective services may take action (Conley, 2007). Drake and Jonson-Reid (2000) warn that some quasi-voluntary services are best conceptualized as non-voluntary. On the other hand, Drake (2013) makes the case that all referrals could be considered voluntary depending on how workers are able to make a case that court action is needed and on how clients may perceive this threat.

Unfortunately no empirical studies on client perceptions of coercion from DR referrals show how DR referrals are perceived by clients and how these affect engagement rates. Our data allows us to test whether DR referrals are perceived to be voluntary by comparing engagement levels between DR referrals and walk-in clients. If DR referrals were considered voluntary by participants, then holding other client characteristics constant, engagement levels would be expected to be similar than those of walk-in clients. Conversely, if DR referrals are perceived as non-voluntary, then observed client engagement levels would be expected to be relatively lower than those of walk-in clients because only engaged clients would self-select into the latter group.

Table 1 presents a comparison of families rated as "safe" or "self-sufficient" for each of the 20 core indicators for walk-in and DR families that participated in an FDM Empowerment Plan between October 2009 and February 2013. As the table shows, DR families are (slightly) more likely to be "safe" or "self-sufficient" in the indicators of child health insurance, budgeting and nutrition; but they are less likely to be rated as "safe" or "self-sufficient" in 14 of the other 20 indicators. As expected, the largest differences are in the indicators of risk of emotional or sexual abuse, family communication skills, parenting skills, and presence of substance abuse.

Estimation approach

In order to assess differences in engagement between families seeking services voluntarily (walk-in) and DR referrals, two measures of engagement are considered. The first one is a binary variable indicating whether a client came back to the family resource center for a second assessment within 6 months of the first assessment. The second indicator is a 3-point scale used

by case managers reflecting on the level of follow-through with the empowerment plan demonstrated by the family between the first and second assessments or when the case is closed. When a family comes back to the agency for a second assessment (usually within 90 days after the first assessment), or when the case is closed, the case worker records an assessment on whether the family exhibited "full participation," an "uneven follow through," or if he/she perceived that there was "no action taken by the family." It is important to note that these measures are limited in nature to measuring program participation and do not fully involve all dimensions of participation as described in the theoretical model. Nevertheless, these measures can offer insights into the basic elements of engagement and their relationship to client perceptions of how voluntary services are.

Two methods of estimation were used: The first method employed a set of logistic regressions used to predict the difference between DR referrals (in all paths) and walk-in clients (the reference group) on (a) the probability of returning for a second assessment and (b) the probability of a family exhibiting "full participation" as opposed to "uneven follow-through" or "no action"[5] while controlling for the 20 indicators of risk, ethnicity, number of children, and county fixed effects[6]. Because regression models may suffer from off-support inference limitations (Berk, 2004, Clog and Haritou, 1997, Oaks & Kaufman, 2006), a second estimation method using a propensity score matching technique was employed. DR referrals were matched to comparable walk-in clients based on the same covariates used in the regression estimation approach. A nearest neighbor propensity score matching algorithm that matched DR families with 5 comparable walk-in families using a caliper of .001 with replacement was used to estimate the difference in engagement rates.[7] Observations that fell off the common support region were excluded from the comparison group in all models. A test of "balance" across

[5] For the regression models using the perceived level of follow-through as a dependent variable, the categorical ordinal nature of its measurement required the use of an ordered-logit model, but such specification did not pass a test for the "parallel regression" or "Proportionality of Odds" assumption required by the model. A multinomial- logit specification was also tried, but it did not pass the Independence of Irrelevant Alternatives assumption required by these models (Long & Freese, 2003). For this reason, a binary indicator was used

[6] In order to control for potential differences in implementation of DR practices across counties, county fixed-effects variables were included in the logit models as controls and as matching covariates in the propensity score matching estimation. Including them in the estimation did not alter the direction or significance of the coefficients of interest in the perceived engagement models (logit or propensity score matching). They did slightly reduce the size on the coefficients of interest in the models predicting a second visit, but the direction remained. Thus, the models without county fixed effects are discussed in the results section, but results for models with the county specific effects are available upon request.

[7] The estimation used version 4.0.6 (17may2012) of the STATA command psmatch2 (Leuven & Sianesi, 2003)

groups showed that matched observations did not vary significantly across groups in any of the matching covariates (the largest bias in both models was lower than 6% and no difference was statistically significant) for any of the estimated models. In the logistic regression models all clients were used in the estimation approach keeping the walk-in clients as the reference group. For the propensity score matching method, three models were estimated comparing walk-in clients to referrals, under paths 1, 2, and 3 separately. Descriptive statistics for the variables used in both models are presented in table 2.

Results

Tables 3 and 4 present estimates of the differences in the engagement indicators between DR referrals and walk-in clients while controlling for risk factors, demographic characteristics, and the rural/urban nature of their location using logistic regression and propensity score matching estimation techniques respectively. The first row in table 3 shows that the odds of a family being perceived as "fully participating" by the case worker for families under path1 are, on average, 38% lower than those of a walk-in family controlling for 20 risk factors, ethnicity, number of children, and county fixed effects ($p<.01$). Similarly, the odds of DR referrals in Path 2 being perceived as "fully participating" were 35% lower than those of walk-in clients controlling for other factors in the model ($p<.01$). Interestingly, the odds of a family in Path 3 being perceived as fully participating were not significantly different than those of a walk-in family ($p>.05$). The propensity score matching estimates revealed similar results than those of the logistic regressions. As the table 4 presents, when comparing DR Path 1 and Path 2 referrals to walk-in clients separately, the percentages of families being perceived as "fully participating" were 10% and 8% lower than the percentages for comparable walk-in clients, respectively ($p<.01$). Further, clients in DR Path 3 showed no statistically significant difference to their matched walk-in counterparts.

Results concerning the probability of a family returning for a second assessment are presented in the lower panels of tables 3 and 4. The logistic regression specification estimates show that, holding other variables in the model constant, the odds of a family in a DR Path 1 referral returning for a second assessment were 53% lower than those of a walk-in family and the odds of a DR Path 2 family were 38% lower than those of a walk-in family. The propensity score matching estimates revealed a similar trend: The percentage of DR referrals in Paths 1 and 2 were also less likely to return to a second assessment than a walk-in family, with differences of

20 ($p<.01$) and 10 ($p<.01$) percentage points less, respectively. Comparisons between DR referrals under Path 3 and walk-in clients revealed no statistically significant differences ($p>.05$) using the logistic regression or the propensity score matching estimates. The literature on participation rates in voluntary and mandated drug treatment supports these findings. Schaub et al. (2011), for example, find no difference on attendance rates between clients attending rehabilitation treatment on a completely voluntary basis and those attending under a clear legal threat while controlling for several risk factors. Additionally, Young (2002) finds that retention rates are positively related to perceived threat of coercion for non-voluntary rehabilitation treatments. This latter finding is also consistent with the theoretical model presented in this paper, which would predict that clients with lower levels of buy-in, receptivity, or perceived agency support would not participate in the absence of a credible threat that makes them do so.

Another important finding is the remarkably constant level of engagement for the walk-in clients' matched groups. As table 4 presents, engagement levels for matched walk-in clients varied minimally across different paths in both engagement measures. A comparison on the matched groups across different paths across the matching covariates (available upon request) revealed that the walk-in clients matched to DR clients in Path 1 had significantly higher scores on the indicators of "parenting skills," "employment," and "stability of home shelter," than those walk-in clients matched to DR clients in Path 3, yet their engagement levels were almost identical. This suggests that the effects of risks on engagement vary across voluntary and non- voluntary clients. This finding is consistent with the theoretical model presented in figure 1: Voluntary clients are more likely to be a self-selection of highly motivated clients than non- voluntary clients and therefore, are more likely to overcome challenges as they relate to their levels of engagement. Non-voluntary client groups, on the other hand, are more likely to include clients with lower levels of motivation in the mix. For them, challenges are more likely to affect their engagement levels as a group[8].

[8] We tested this hypothesis by regressing the two engagement measures on scores for the 20 indicators interacted with DR Paths. The coefficients on the interaction terms (available upon request) were significant as a group at the .05 level on the model with the indicator of returning for a second assessment as a dependent variable (Likelihood Ratio test; χ^2 (60) =140; P<.01) and at the .10 level for the model with perceived full participation as a dependent variable (Likelihood Ratio test; χ^2 (60) = 82; P<.05). The coefficients on the interaction terms can be interpreted as the differential impact of each of the indicators for a particular Path on the engagement variable when compared to walk-in clients. The fact that they were statistically significant denotes that the effect of scores on indicators for clients under DR referrals as a whole is different than the effect for walk-in clients.

Discussion

Our findings show that clients attending California Family Resource Centers on a voluntary (walk-in) basis were more likely to complete their programs and be perceived as engaged by their case managers than comparable DR referrals in the least coercive paths. DR referrals in the non-voluntary path, however, exhibited similar participation rates as walk-in clients. Additionally, our findings suggest that risk factors tend to affect engagement rates for voluntary clients differently than they affect DR referrals. These findings are consistent with the theoretical propositions posed in this paper that voluntary services will tend to be attended by a self-selected group of clients with high levels of receptivity, buy-in, and positive perceptions of the agency.

The findings pose important implications for practice, policy, and future research. On the practice side, our findings suggest that DR clients under supposedly "voluntary" referrals are not likely to consider these referrals as voluntary. Further, the assumption that DR referrals will attend services voluntarily can be detrimental to many families in need of services but with lower levels of receptivity, buy-in, or positive perceptions about the agency. The literature is clear on the relationship between engagement and likelihood of positive outcomes in the child welfare field (Dawson & Berry, 2002). Furthermore, recent research suggests that families that participate in DR services report high levels of satisfaction and show positive safety outcomes after completing their programs (Fuller et al., 2014). Thus, if the goal is to increase participation and program completion rates for "all" referrals, our findings suggest that those in paths with the lower levels of threat should receive special attention. Program participation for these families is likely to require more effort (increasing levels of buy-in, receptivity and agency perceptions) than those required by families that attend services under the clear threat of court involvement or on a completely voluntary basis (self-referred). A similar point can be raised at a broader policy level: If the goal of DR as a prevention approach is to reach the greatest number of families, through their attending and completing services, then the assumption that families will attend services because a referral is "voluntary," needs to be considered carefully. Our findings suggest that, at the very least, voluntary participation and engagement in a DR context need to be considered in a nuanced and non-linear manner.

Available theory on engagement in the child welfare field is, for the most part, focused on non-voluntary settings. The growth of DR in the field of child welfare, however, highlights an increased interest and investment in prevention and services attended in a voluntary or quasi-

voluntary manner. The model presented in this paper constitutes one of the first attempts to apply existing research in the context of voluntary child welfare services, but future research on the field could expand our understanding and measurement of engagement in the context of prevention by addressing some of the limitations in this study.

Our findings are constrained by a limited empirical operationalization of engagement. Applied research using multi-dimensional constructs to measure engagement like those of Marchenko et al. (2011), or Cunningham et.al (2008) in DR settings would greatly contribute to our understanding of reasons for engagement or disengagement from services in voluntary and quasi-voluntary settings testing the propositions presented in this paper.

Additionally, more research on the measurement and operationalization of clients' perceptions of how voluntary a service is could also contribute immensely to our understanding of how these perceptions relate to engagement. While this and all of the studies cited in this paper operationalize the perceived threat of court involvement using discrete measures, an approach employing qualitative or quantitative methods to measure perceptions in a continuous manner and its relationship with different engagement dimensions could shed more light on the types of referrals and client perceptions as they influence engagement and disengagement from services.

Finally, further research on the measurement of engagement at the family as opposed to the individual level could greatly advance our understanding of engagement and outcomes in services as well. While engagement measures in this and all studies cited in this paper refer to the individual, many of the services provided in DR settings apply to families with multiple members. Engagement measures that consider individual and family dynamics could also greatly enhance our understanding of engagement and success in a prevention context.

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Tables

Table 1: Percentage of clients that score at "safe" or "self-sufficient" level in the first assessment by indicator and DR referral

Indicator	ALL	NON-DR (%)	DR (%)	Difference (DR-NonDR)	
Access to transportation	90.2	90.1	90.5	0.4	
Appropriate development	87.0	88.1	85.2	-2.9	*
Budgeting	70.4	67.3	75.1	7.8	*
Childcare	80.1	79.3	81.2	1.8	
Child health insurance	86.3	84.3	89.5	5.2	*
Clothing	75.4	75.0	75.8	0.8	
Community resources knowledge	60.4	61.4	58.8	-2.6	
Emotional wellbeing/sense life value	77.8	80.1	74.3	-5.9	*
Employment	53.8	52.2	56.4	4.2	*
Family communication skills	79.4	82.0	75.5	-6.5	*
Health services	87.8	88.9	86.1	-2.9	*
Home environment	92.8	93.9	91.1	-2.7	*
Nurturing	90.3	92.5	86.9	-5.6	*
Nutrition	94.6	93.6	96.3	2.7	*
Parenting skills	84.5	88.1	78.8	-9.3	*
Presence of (substance) abuse	90.4	93.1	86.2	-7.0	*
Risk of emotional or sexual abuse	83.8	87.9	77.3	-10.6	*
Stability of home shelter	84.2	84.9	83.1	-1.9	
Supervision	96.9	96.9	96.9	0.0	
Support system	75.1	75.3	74.8	-0.4	
N	3,566	2,179	1,387		

* Difference is statistically significant at the .05 level

Table 2: Descriptive Statistics

Variable	Proportion/Mean
Dependent Variables	
Has a second Assessment	0.79
Perceived by worker as exhibiting "Full Participation"	0.62
Key Independent Variables	
Differential response referral Path1	0.06
Differential response referral Path2	0.28
Differential response referral Path3	0.05
Walk-in clients (Non-DR referral)	0.61
Demographic Variables	
Number of children under 6 years of age*	1.09
Hispanic	0.66
Africa American	0.11
White	0.15
Other race/ethnicity	0.08
Family Resource Center Location (Rural vs. Urban)	
Attends a Rural FRC	0.04
Family Resource Center Location (County)	
Butte	0.01
Fresno	0.05
Lake	0.02
Orange	0.18
Sacramento	0.10
San Joaquin	0.09
Santa Barbara	0.25
San Francisco	0.10
San Luis Obispo	0.02
Stanislaus	0.08
Siskiyou	0.01
Tehama	0.01
Tulare	0.01
Ventura	0.07
N	3,566

Table 3: Difference in engagement indicators (DR vs. Non-DR) calculated using Logistic Regression

Change in odds of:	Logit coefficient	Odds ratio	% change in odds	z*
Being perceived as "Fully participating"				
DR (Path 1) vs. Walk-in	-0.47	0.62	-37.60	-3.20
DR (Path 2) vs. Walk-in	-0.42	0.65	-34.50	-4.97
DR (Path 3) vs. Walk-in	0.25	1.28	28.20	1.46
Number of observations = 3,566 Log pseudo likelihood = -2283.97 Pseudo R2 = .04				
Returning for a second assessment				
DR (Path 1) vs. Walk-in	-0.77	0.46	-53.80	-4.86
DR (Path 2) vs. Walk-in	-0.49	0.62	-38.40	-4.91
DR (Path 3) vs. Walk-in	0.09	1.09	8.90	0.41
Number of observations = 3,566 Log pseudo likelihood = -1776.49 Pseudo R2 = .03				

*Z statistic calculated using standard errors robust for heteroskedasticity.

Table 4: Difference in engagement indicators (DR vs. Non-DR) calculated using propensity score matching

Proportion of Families	DR	Non-DR	Difference	Std. Err.*	t	N**
Being perceived as "Fully participating"						
DR (Path 1) vs. Walk-in	0.52	0.62	-0.11	0.044	-2.28	2,377
DR (Path 2) vs. Walk-in	0.53	0.62	-0.02	0.026	-3.22	3,076
DR (Path 3) vs. Walk-in	0.70	0.60	0.10	0.045	2.21	2,341
Returning for a second assessment						
DR (Path 1) vs. Walk-in	0.66	0.85	-0.20	0.039	-5.02	2,377
DR (Path 2) vs. Walk-in	0.75	0.84	-0.09	0.021	-4.38	3,076
DR (Path 3) vs. Walk-in	0.84	0.83	0.01	0.036	0.23	2,341

* Analytical Standard Errors

** Number of observations in the Common Support Region

Figures

Figure 1: Dimensions of engagement and motivation levels

	Negative working relationship with agency/high mistrust		**Positive working relationship with agency/ low mistrust**	
	Low receptivity	**High receptivity**	**Low receptivity**	**High receptivity**
Low "buy-in"	Reject services	Hopelessness	Reject services	Fragile engagement
High "buy-in"	Evade services	Defiance	Evade services	Strong engagement