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Youth and Caregiver Agreement of Youth Symptoms in Language Concordant and Discordant Dyads: Is Something Lost in Translation?

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Received: 2 August 2019; Accepted: 17 November 2019; Published: 21 November 2019



Abstract: Caregivers are primarily responsible for seeking care on behalf of youth, so understanding how primary language relates to caregiver–youth agreement of youth symptoms is critical to extending the reach of mental health services. In this study, 145 youth (61% female; ages 12–17 years) and their caregivers, who received behavioral health services at primary care clinics, completed measures of youth symptoms in their primary language. We hypothesized primary language concordant caregiver–youth dyads would show higher agreement when reporting on youth symptoms than language discordant dyads, and youth and their caregivers would show higher agreement when reporting on behavioral (e.g., doing drugs, getting into arguments) rather than on internal (e.g., worrying, feeling worthless) symptoms. Overall, agreement in language concordant dyads ranged from $r = 0.551$ to 0.615 , while in discordant dyads agreement ranged from $r = 0.279$ to 0.441 . Consistent with our hypothesis, language concordant dyads demonstrated significantly greater agreement than discordant dyads for most of the analyses. Contrary to our hypothesis, agreement was similar for internalizing and externalizing symptom clusters. Results suggest primary language differences between youth and caregivers are associated with lower agreement about youth problems; youth generally report higher symptom frequency than their caregivers.

Keywords: acculturation; language; youth; concordance; psychiatric symptoms

1. Introduction

The United States is becoming increasingly diverse, especially with regard to primary language. Over the past 40–50 years, the percentage of the US population age five and older who spoke a language other than English in the home nearly doubled from a low of 11% in 1980 to 20% in 2010 (Rumbault and Massey 2013). The primary language other than English spoken in US households is Spanish, corresponding with an increase in migration from Central and South American countries (US Census Bureau 2019). In 2013, there were 36.3 million children in the US with at least one foreign-born parent (US Census Bureau 2019).

Acculturation, or the process by which immigrants adapt to their host country's dominant spoken language, culture, and customs (Berry et al. 2006), may occur at different rates for adults versus youth. In general, children and adolescents adapt more quickly to the English language and US culture (Berry et al. 2006). The result is, over a time, an increasing acculturation “gap” between youth and their caregivers.

Approximately 50% of youth ages 13–18 experience a mental health disorder (Merikangas et al. 2010). Most commonly, youth struggle with anxiety (32%) and mood (14%) disorders, but behavioral problems, such as those that accompany attention deficit/hyperactivity

disorder (ADHD), oppositional defiant disorder (ODD), or conduct disorder (CD), are also common (19%), as are substance use disorders (11%). Adolescence is a time for increased risk for the development of psychiatric disorders—approximately half of lifetime cases of psychiatric disorders emerge by age 14 (Kessler et al. 2005). However, relatively few youths with psychiatric disorders access needed care (Merikangas et al. 2010).

Discrepancies in acculturation between parents and youth are associated with increases in family conflict and externalizing problems in adolescents (Smokowski et al. 2010; Szapocznick and Kurtines 1993; Unger et al. 2009). Because primary language is so strongly associated with acculturation (Lee et al. 2011), and because of the increase in immigrant families that speak a language other than English in the home (Rumbault and Massey 2013), mental health clinicians working with linguistically diverse families should be especially attuned to the possible impacts of acculturation gaps. This is especially true because parents are a primary vehicle through which youth access mental health services (Costello et al. 1998; Stiffman et al. 2004).

One area particularly important to investigate is how primary language differences relate to different perceptions of youth behavior and well-being. However, there is a paucity of research examining language-discrepant parent and youth dyads (Tseng and Fuligni 2000). Theories about the importance of primary language as children move into adolescence focus on the increased need for caregivers and youth to communicate verbally (Hartup and Laursen 1991). Strong caregiver–youth communication is posited to be central to youths' understanding of why caregivers provide discipline and guidance; instead of seeing rules as caregiver-centered, open verbal communication between caregivers and youth allow youth to see rules and discipline as arising from concern and a long-term investment in the well-being of the youth by the caregiver (Rogoff 1990). Disruptions in communication, such as those that occur when caregivers and youth differ in primary language proficiency, reduce the effectiveness of parenting (Clarke-Stewart and Parke 2011).

One recent longitudinal study of 194 Mexican-origin 7th graders (47% male) found that, in the families where parents were proficient in the same language as their children, positive parenting behaviors predicted reduced risk of substance use in youth. However, in language discordant dyads, parenting did not protect against substance use (Schofield et al. 2017b). A similar study of 674 Mexican-origin families found when mothers and youth were not proficient in the same language, positive parenting behaviors were less strongly related to youths' aggression and self-control (Schofield et al. 2017a). Together, this nascent research suggests it is important to examine language differences among caregivers and youth.

1.1. Assessment of Youth Mental Health Problems

When care for mental and behavioral health concerns is sought, it is recommended that, in addition to conducting clinical interviews, clinicians administer self-report and parent-report measures to gather information about youths' symptoms (Deighton et al. 2014; Jensen-Doss and Hawley 2010). These measures provide patients and clinicians with important data in an expedient and cost-effective manner. Such reports, in concert with how the patient presents in session, help clinicians and their patients arrive at a collaborative consensus about possible diagnoses, prognoses, and treatment options.

It is recommended clinicians gather information from both youth and their caregivers' perspectives because often these conflict (Achenbach et al. 1987). For instance, a recent meta-analysis examining degree of agreement between adolescents and their parents on self-report measures suggests parents and youth were strongest when reporting on externalizing psychiatric symptoms in youth (symptoms that are more visible, such as being argumentative, fighting, breaking things, or using substances; De Los Reyes et al. 2015). Internalizing psychiatric symptoms, such as depression or anxiety, showed lower rates of agreement, possibly because these are internal feelings youth experience and are not as readily perceived by caregivers. Of importance, the parent–youth dyads in this meta-analysis all spoke the same primary language. The degree of discrepancy of symptom reports between caregivers and youth has important implications for treatment planning and patient outcomes.

Among English-speaking dyads, greater discrepancies in symptom reports of parenting behavior are prospectively associated with greater problems in behavior and psychological functioning in youth (Guion et al. 2009). Discrepancies can also hinder treatment planning in a clinical setting, where agreement between the clinician, youth, and caregiver are critical to setting treatment goals and providing interventions.

Consistent with changing demographics in the US, clinicians in mental health care settings can expect to see an increased number of youth and families from mixed-language households. It is therefore worth seeing whether language incongruence between caregivers and youth is also associated with greater discrepancies in self-report measures of youth problems.

1.2. Purpose and Hypotheses

The purpose of the current study was to examine whether agreement between caregivers and youth on youths' behavioral and psychiatric symptoms differed significantly when youth and caregivers had the same primary language (were language concordant) or had different primary languages (language discordant dyads). Consistent with theories emphasizing the increasingly important role that verbal communication takes between caregivers and their offspring as children enter into adolescence (Hartup and Laursen 1991), and research suggesting dissimilar language preferences are disruptive for caregiver–youth communications in immigrant families (Schofield et al. 2017a, 2017b), we hypothesized primary language concordant caregiver–youth dyads would show higher agreement when reporting on youth symptoms than language discordant dyads (H1). We also expected to replicate prior work (De Los Reyes et al. 2015) suggesting youth and their caregivers would show higher agreement when reporting on behavioral (e.g., doing drugs, getting into arguments) rather than on internal (e.g., worrying, feeling worthless) symptoms (H2).

2. Method

Data were collected from four primary care clinics, all part of a federally qualified health center (FQHC) in Northwest Arkansas. The FQHC sees any resident of the region for primary care health concerns who wants medical care, regardless of the patient's immigration status, insurance status, or ability to pay. When caregivers seek help for youth mental health difficulties, they most often do so through primary care medical providers (Costello et al. 1998), so primary care is an ideal place to investigate symptom presentations in youth. Multiple informant information was collected from dyads seen for behavioral health services.

2.1. Location

Data collection took place in Northwest Arkansas. The Northwest Arkansas area has had a significant increase in the ethnic diversity of its residents over the past 30 years. In 1990, only 4% of residents the area identified with a race or ethnicity other than non-Hispanic White, but, in 2017, this number rose to 27% (US Census Bureau 2019). In that same time frame, the population of the Northwest Arkansas area more than doubled. Nearly two-thirds of ethnically and/or racially diverse Northwest Arkansas residents identify as Latinx (US Census Bureau 2019).

2.2. Participants

The demographic characteristics for the parent–teen dyads are presented in Table 1. A total of 145 parent–youth dyads were recruited for the study. Of these, 67 (46.2%) were categorized as language concordant dyads (meaning both parent and youth had the same primary language dominance), while 78 (53.8%) were language discordant dyads (where parents and youth differed in primary language dominance). All but two youths reported either White (25.5%) or Latinx (73.1%) race/ethnicity; one reported Pacific Islander, and one did not report on their race/ethnicity. Discordant and concordant dyads were similar in composition with regard to youth gender, age, primary language, and caregiver reporter. However, discordant dyads were significantly more likely to have youth with a Latinx

ethnicity and parents who spoke Spanish instead of English. The majority of youth were seen for depression (19.6%), anxiety (15.4%), and externalizing disorders (13.3%). An additional 12.6% were seen for eating and feeding disorders and 10.5% for adjustment disorders. A total of 18.2% of youth had no psychiatric diagnosis in their medical record.

Table 1. Demographic statistics for the sample by youth–caregiver primary language concordance.

Variable	Concordant	Discordant	Test Statistic
Youth gender			$\chi^2 (1) = 0.13, p = 0.718$
Female	41 (61.2%)	50 (64.1%)	
Male	26 (38.8%)	28 (35.9%)	
Youth age, in years	14.58 (2.01)	14.59 (1.72)	$t (143) = -0.03, p = 0.980$
Youth ethnicity			$\chi^2 (1) = 44.52, p < 0.001$
Latinx	31 (47.0%)	75 (96.2%)	
Caregiver primary language			$\chi^2 (1) = 101.20, p < 0.001$
English	58 (86.6%)	3 (3.8%)	
Spanish	9 (13.4%)	75 (96.2%)	
Youth primary language			$\chi^2 (1) = 3.05, p = 0.081$
English	58 (86.6%)	74 (94.9%)	
Spanish	9 (13.4%)	4 (5.1%)	
Caregiver relationship to youth			$\chi^2 (3) = 1.01, p = 0.798$
Mother	54 (80.6%)	63 (85.1%)	
Father	6 (9.0%)	6 (8.1%)	
Other relative	4 (6.0%)	2 (2.7%)	
Missing	3 (4.5%)	3 (4.1%)	
Primary psychiatric diagnosis			$\chi^2 (6) = 5.22, p = 0.516$
Depression	13 (19.7%)	15 (19.5%)	
Anxiety	11 (16.7%)	11 (14.3%)	
Externalizing disorder	10 (15.2%)	9 (11.7%)	
Eating/feeding disorder	10 (15.2%)	8 (10.4%)	
Adjustment disorder	7 (10.6%)	8 (10.4%)	
Other disorder	3 (4.5%)	12 (15.6%)	
No diagnosis	12 (18.2%)	14 (18.2%)	

Note. Concordant dyads $n = 67$; Discordant dyads $n = 78$.

2.3. Procedure

Medical providers referred teen patients for behavioral health consultations to one of 17 BHCs (35% bilingual in Spanish and English) for a same day brief (e.g., 30 min) appointment. At the behavioral health session, parents and youth each independently completed measures of youth's behavior and psychiatric symptoms. Sixty-three percent of youth–caregiver dyads ($n = 91$) completed study measures at their first behavioral health session, 20% ($n = 29$) at their second session, and 10% ($n = 15$) at their third. The remaining 7% ($n = 10$) of dyads completed study measures between their 4th and 8th sessions. All study procedures were approved by the University Institutional Review Board and by the Executive Director of the FQHC. Each patient or guardian (for patients who are minors) signs a patient consent form, updated annually, that includes permission to have information from patients' medical records and self-report forms from their appointments used for research and program evaluation purposes. Verbal assent to complete self-report measures was obtained from each caregiver and youth at the time of their behavioral health appointment.

2.4. Measures

Demographic data. Patient demographic data were culled from electronic medical records. These data included age, gender, race/ethnicity, and primary psychiatric diagnoses. Caregiver relationship to the youth was coded by behavioral health clinicians.

Primary language. Primary language preference was coded by behavioral health clinicians. Clinicians noted whether the patient and their caregiver used English (0) or another language (1) during the behavioral health session and when completing symptom measures.

Youth symptoms. To assess psychiatric symptom frequency in youth, the youth self-report and youth caregiver-report version of the A Collaborative Outcome Resource Network (ACORN; Brown 2011) were used. The Youth ACORN is a 17-item self-report measure assessing behavior problems and psychiatric symptoms occurring over the prior two weeks. Seven items focus on mood, anxiety, and other internalizing symptoms, while ten items focus on drug and alcohol use, temper outbursts, social problems, and other externalizing symptoms. Responses are scored on a 5-point Likert scale, from 0 (*never*) to 4 (*very often*) and then averaged to form a global distress score. In this study, we also created averages for the ten internalizing symptom items and the seven externalizing symptom items. Dyads independently completed the ACORN reporting on the youth's symptoms in the language of their choice (English or Spanish). The Spanish version of the measure is available from the developers (Brown 2011).

Normative data, with over 15,000 youth and caregivers at a first psychotherapy session, revealed an average global distress score of $M = 1.6$ ($SD = 0.8$) for caregiver report and $M = 1.4$ ($SD = 0.7$) for youth self-report. Boys on average score 0.1 points below girls, a difference that the ACORN manual describes as relatively meaningless (Brown 2011). Youth self-report scores in the 0–1 range are indicative of normal/mild distress, 1.1–1.8 are indicative of moderate distress (and are typical for people seeking mental health services), and 1.9–4 are indicative of severe distress. Internal consistency reliability estimates are 0.80 to 0.86, depending on item count, and weak evidence of internalizing and externalizing symptom factors (Brown 2011). ACORN scores correspond with clinician-assigned Global Assessment of Functioning (Jones et al. 1995) scores in both Latinx and non-Hispanic White primary care patients (Bridges et al. 2014).

Internal consistency reliability in the current sample for in a session, because everything must be said each version and subscale was as follows: caregiver report global distress $\alpha = 0.85$ (English $\alpha = 0.90$, Spanish $\alpha = 0.71$); caregiver report externalizing symptoms $\alpha = 0.79$ (English $\alpha = 0.87$, Spanish $\alpha = 0.67$); caregiver report internalizing symptoms $\alpha = 0.83$ (English $\alpha = 0.87$, Spanish $\alpha = 0.74$); youth self-report global distress $\alpha = 0.86$ (English $\alpha = 0.87$, Spanish $\alpha = 0.83$); youth self-report externalizing symptoms $\alpha = 0.80$ (English $\alpha = 0.81$, Spanish $\alpha = 0.78$); youth self-report internalizing symptoms $\alpha = 0.83$ (English $\alpha = 0.84$, Spanish $\alpha = 0.80$).

2.5. Analytic Approach

We began by calculating descriptive statistics for all study variables. We compared language concordant and discordant dyads on demographic characteristics and psychiatric symptoms using chi-square and independent samples *t*-tests. To evaluate each hypothesis, we calculated bivariate correlation coefficients and then compared these using Fisher's *r*-to-*z* transformations. Each hypothesis was evaluated using a one-tailed test at an $\alpha = 0.05$ level.

3. Results

Descriptive statistics are presented in Table 2. Average ACORN global distress scores ranged from 0.98 to 1.42, in the moderate distress range and consistent with averages obtained from community samples of youth seeking mental health treatment services (Brown 2011). Across all reporters and symptom clusters, ACORN scores were significantly lower in the language discordant dyads than the language concordant dyads, suggesting youth in these dyads (who were more likely to be Latinx and have Spanish speaking caregivers) were experiencing fewer psychiatric symptoms.

Table 2. Descriptive statistics for symptom scores by reporter and youth–caregiver primary language concordance.

Variable	Concordant M (SD), Range	Discordant M (SD), Range	Test Statistic
ACORN Global			
Youth self-report	1.42 (0.65), 0.18–3.41	1.14 (0.56), 0.12–2.25	$t(142) = 2.78; p = 0.006$
Caregiver report	1.29 (0.68), 0.12–3.24	0.98 (0.58), 0.00–2.47	$t(143) = 2.98; p = 0.003$
ACORN Internalizing			
Youth self-report	1.67 (0.94), 0.00–3.43	1.30 (0.76), 0.00–3.14	$t(142) = 2.57; p = 0.011$
Caregiver report	1.52 (0.98), 0.00–4.00	1.14 (0.68), 0.00–2.86	$t(143) = 2.78; p = 0.006$
ACORN Externalizing			
Youth self-report	1.25 (0.66), 0.10–3.50	1.03 (0.62), 0.00–2.56	$t(142) = 2.06; p = 0.042$
Caregiver report	1.13 (0.75), 0.00–3.40	0.87 (0.67), 0.00–3.00	$t(143) = 2.23; p = 0.027$

Note. Concordant dyads $n = 67$, discordant dyads $n = 78$. Scores could range from 0–4.

Correlations between parent and youth reports by primary language concordance and symptom clusters are presented in Table 3. Consistent with our first hypothesis, primary language concordant dyads showed significantly greater agreement when reporting on youth symptoms than discordant dyads. This was true for total psychiatric symptoms and for the externalizing cluster. The internalizing cluster showed the same pattern of results, with a trend for primary language discordant dyads to show lower rates of symptom agreement than concordant dyads. Therefore, our first hypothesis was supported. Contrary to our second hypothesis, agreement was not stronger for externalizing symptoms than for internalizing symptoms in both language concordant and discordant dyads.

Table 3. Correlations between caregiver report and youth self-report by primary language concordance and symptom clusters.

Symptom Cluster	Concordant	Discordant	Test Statistic Comparing Concordant to Discordant
ACORN Global	0.565 ***	0.279 *	$Z = 2.07, p = 0.019$
ACORN Internalizing	0.615 ***	0.441 ***	$Z = 1.43, p = 0.076$
ACORN Externalizing	0.551 ***	0.301 **	$Z = 1.81, p = 0.035$
Test statistic comparing internalizing to externalizing	$Z = 0.62, p = 0.268$	$Z = 1.08, p = 0.140$	

Note. Concordant dyads $n = 67$, discordant dyads $n = 78$. Z statistic evaluated with one-tailed test. * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$.

Robustness Analyses

To assess the robustness of our findings, we conducted a series of post-hoc analyses. Given there were significant differences in primary language concordant and discordant dyads on ethnicity and caregiver primary language, we repeated analyses controlling for these variables. Partial correlations among study variables, controlling for youth ethnicity, yielded a similar pattern of results. The same was found when controlling for caregiver primary language. Although most youth–caregiver dyads completed ACORN measures at their first behavioral health session, some completed measures at subsequent sessions. To the extent that sessions focused on developing a shared understanding of youth problems, it is possible agreement rates among caregivers and youth who completed measures in later sessions would be higher than those in earlier sessions. We therefore repeated our analyses,

only selecting participants who completed measures at the first behavioral health session, and obtained the same pattern of results. We also repeated our analyses with only the Latinx youth, who comprised the majority of language discordant dyads, but only about half of language concordant dyads. When repeating analyses with only Latinx youth, we obtained the same pattern of results. Although most caregivers were mothers, sometimes fathers or other relatives (aunts, grandparents) would complete caregiver measures. We therefore repeated our analyses with only youth whose mother provided a caregiver report (Table 4). When considering only mother reports, differences between primary language concordant and discordant dyads were amplified, but maintained the same pattern (Table 4). In summary, all robustness analyses we completed support the findings from our primary analyses.

Table 4. Correlations between mother report and youth self-report by primary language concordance and symptom clusters.

Symptom Cluster	Concordant Dyads	Discordant Dyads	Test Statistic Comparing Concordant to Discordant
ACORN Global	0.659 ***	0.192	$Z = 3.09, p = 0.001$
ACORN Internalizing	0.702 ***	0.438 ***	$Z = 2.08, p = 0.019$
ACORN Externalizing	0.618 ***	0.168	$Z = 2.86, p = 0.002$
Test statistic comparing internalizing to externalizing	$Z = 0.75, p = 0.227$	$Z = 1.62, p = 0.053$	

Note. Concordant dyads $n = 53$, discordant dyads $n = 61$. Z statistic evaluated with one-tailed test. *** $p < 0.001$.

4. Discussion

Here, we examined whether agreement between caregivers and youth when reporting on caregiver symptom differed in primary language concordant and discordant dyads. Consistent with our hypotheses, we largely found primary language concordant dyads showed significantly stronger agreement about youth psychiatric symptoms than did language discordant dyads. This pattern of results was evident for both internalizing symptoms, such as feelings of loneliness, depression, worry, or a sense of low self-worth, and for externalizing symptoms, such as arguing with people in authority, using drugs/alcohol, having trouble sitting still or waiting one's turn, or having a hard time controlling one's temper. In general, youth reported slightly more symptoms than did their caregivers, regardless of language concordance. Furthermore, even in the cases of highest agreement (primary language concordant mother-youth dyads), youth reports of symptoms and caregiver reports of youth symptoms were not redundant (highest $r = 0.702$), suggesting each member of the dyad contributes a unique perspective that may be clinically valuable.

Youth in language discordant dyads showed significantly lower psychiatric symptom scores than did youth in language concordant dyads. Most youth in language discordant dyads were Latinx, while only about half of youth in language concordant dyads were Latinx. Results of lower psychiatric symptoms in the primarily Latinx youth group may be surprising, since racial and ethnic minority youth tend to experience more adversity and disadvantage (e.g., poverty) than majority youth (Slopen et al. 2016) and because recent nationally representative surveys of youth suggest similar or higher rates of depression and substance use among Latinx high school students than White or Black students (Kann et al. 2018). However, numerous studies have also documented the relative health and mental health advantages of recent immigrants, compared to their US-born counterparts (Marks et al. 2014), a phenomenon known as the immigrant paradox. Lower rates of psychiatric symptoms in youth from language discordant dyads may be reflective of a higher likelihood the families were immigrants. It is also possible that language discordant families had other important strengths that could serve to enhance the resilience of youth. For instance, these youth were exposed to at least two languages (and probably to two or more cultures) on a regular basis. Research with ethnic minority youth finds numerous benefits to bilingualism and biculturalism (for a review, see Gonzalez et al. 2004). In addition, all data for this study were collected in clinics that are part of a

federally qualified health center; over 90% of patients seen at this health center have incomes placing them at or below 200% of the federal poverty level (Uniform Data System 2007). Because most youth in this study could be categorized as coming from disadvantaged backgrounds, it may be that ethnic minority status was no longer associated with greater psychiatric difficulties. Robustness analyses conducted with only Latinx youth confirmed the general pattern of findings: youth and caregivers whose preferred language differed showed lower rates of agreement when describing youth symptoms. Our results thus add to the literature suggesting potential mental health benefits to bilingualism in youth (Gonzalez et al. 2004).

In general, youth and caregivers in this sample reported more internalizing symptoms than externalizing symptoms, regardless of primary language. These findings are consistent with psychiatric diagnoses youth had in their electronic medical records and from research suggesting a significant number of adolescents seen in primary care struggle with depression or anxiety (Chavira et al. 2004; Zuckerbrot et al. 2018). Epidemiological studies also suggest rates of internalizing disorders are higher than rates of externalizing disorders among youth (Merikangas et al. 2010).

Contrary to prior work (De Los Reyes et al. 2015), we found caregivers and youth had lower rates of agreement when reporting on externalizing symptoms than on internalizing symptoms. It is possible that this was because most reports, whether from caregivers or from youth, showed very few youths exhibited any symptoms of externalizing problems at all. Most commonly, reports suggested difficulties with anxiety, worry, and sadness. The relatively restricted range and low variability in externalizing symptoms would have an attenuating effect on any measures of association. Replicating results with a larger sample of youth referred for a wider variety of problems would be important.

Because caregivers are often the ones who initiate help-seeking on behalf of youth (Costello et al. 1998), we would have expected average scores on caregiver reports to be comparable to or higher than youth self-report score averages. However, here we found the opposite. Caregivers tended to have lower ratings of youth problems than youth self-reports. This may be because of the unique nature of primary care behavioral health referrals. In primary care, help-seeking for youth can be initiated by caregivers, but it can also be initiated by medical providers. It is possible medical providers referred youth to behavioral health, even if caregivers did not see a need. It would be helpful to expand this research to examine whether referrals (youth initiated, caregiver initiated, or provider initiated) result in similar mean differences between youth and caregivers.

In order to ensure our findings were robust, we conducted a set of post-hoc analyses. When controlling for ethnicity, primary caregiver language, or the number of behavioral health visits the youth and caregiver had already attended, or when limiting analyses to only mothers and fathers, we obtained the same pattern of results. The pattern was similar, but amplified, when we limited our sample to only mother–youth dyads. However, replication with new samples is important to ensure their generalizability.

The most common language discordant dyads were composed of Spanish-speaking caregivers and English-speaking youth. This is consistent with census data (US Census Bureau 2019) suggesting Spanish is the most common primary language spoken in the home outside of English, and with research findings that suggest children and adolescents tend to acculturate at a faster rate than do adults (Berry et al. 2006). However, the relatively low number of youths who spoke Spanish and caregivers who spoke English in the language discordant dyads suggest the sample contained very few youths who had recently immigrated to join families already settled in the United States. Therefore, there was likely ample opportunity for caregivers to observe and interact with youth, suggesting the larger discrepancies we observed in language discordant dyads were probably not due to the limited time the caregivers and youth had lived together. However, we did not assess this directly and future studies may want to control for the number of years caregivers and youth have lived together.

4.1. Clinical Implications

The United States is becoming increasingly diverse. A recent wave of family migration has meant an increase in households with parents who speak a primary language different than that of their children. Our findings suggest primary language differences between caregivers and youth translate into different perceptions about youth symptoms, too. We confirm prior reports suggesting youth and caregivers provide non-redundant information about youth well-being (De Los Reyes et al. 2015), but also find the overlap is even smaller with caregivers and youth who prefer to speak different languages. This suggests two important clinical targets. First, because parents are often the gatekeepers to youths' help-seeking for mental health services (Stiffman et al. 2004), and because lower parental recognition of youth problems are associated with reduced likelihood of seeking care (Reardon et al. 2017), an increased focus on providing education about common symptoms of psychiatric difficulties is warranted. Adolescence is a time for heightened risk for mental health problems (Kessler et al. 2005). Using locations such as primary care offices to disseminate information about normal and atypical mental health symptoms as children develop would likely increase parental perceived need for services and appropriate help-seeking. Since the majority of youth with psychiatric needs do not receive services (Merikangas et al. 2010), the widespread provision of psychoeducation during health care encounters for other concerns may be critical. Second, clinicians working with language discordant families may need to spend more time initially working with families to develop a shared understanding of youth problems and how they might be treated. Although this may take more time on the front end, the benefits of developing this shared understanding (of reducing discrepancies in perspectives) are realized later, when families are more compliant with treatment (Guion et al. 2009). Furthermore, increased mutual understanding, or intersubjectivity (Rogoff 1990), is associated with more positive parent–youth relationships and parenting behavior which, in turn, improves adolescent psychiatric well-being (Schofield et al. 2017a, 2017b).

4.2. Limitations and Future Directions

Our study's findings should be considered with the following limitations in mind. First, we collected data in primary care clinics. While this allowed for a wider variety of patients to be included in research than might be the case if data had been collected at a specialty care clinic, this may have limited the severity of youth presenting problems, leading to an attenuation of correlations. This may be especially true for externalizing problems. Furthermore, in this setting, youth could be referred for behavioral health services through the medical provider, so neither the youth nor the caregiver may have initiated services. Future studies should therefore examine agreement rates in language concordant and discordant dyads in traditional mental health outpatient settings or school-based clinics to see if results replicate. Similarly, the primary care setting where data collection took place is part of a federally qualified health center, and most of the patients seen there experience significant economic hardship. Replicating findings to patients representing a larger range of socioeconomic statuses would be helpful.

Self-report measures were typically obtained at the end of the first (or subsequent) behavioral health session. Therefore, it is possible agreement rates between youth and caregivers were higher because the session had already focused on developing a shared understanding of the youth's problems or reason for referral. Many clinicians were not bilingual and so oftentimes language discordant caregivers and youth had sessions that included an interpreter. The presence of an interpreter can slow down the amount of information that is provided in a session, because everything must be said twice (Villalobos et al. 2016). To the extent that having a behavioral health session provided caregivers and youth with an opportunity to develop a shared understanding of youth symptoms, sessions that did not require a translator would have included more information. Therefore, replicating these findings and collecting self-report measures *prior* to meeting with a clinician would be helpful. Nevertheless, robustness analyses did not indicate that more time meeting with a clinician, as measured by number of prior behavioral health sessions, changed the pattern of results.

Most of the dyads in our study spoke English or Spanish; very few spoke other languages. Furthermore, nearly all youth spoke English (it was the caregivers who frequently preferred Spanish). It is unclear if lower rates of agreement between caregivers and youth would extend to other language dyads, or to dyads where youth primarily spoke Spanish and caregivers spoke English. In addition, we did not ask if the caregiver completing the measure was the primary caregiver in charge of the youth, or how long that caregiver had lived with the youth. Such data would be helpful to have to ensure agreement differences between language concordant and discordant dyads are not due to a lack of opportunity to interact. However, caregivers had to have legal guardianship of the youth in order to authorize medical service utilization, so, at minimum, all were centrally involved in the youth's daily life at the time of the study.

Despite these limitations, our study contributes to a needed body of research exploring language differences in families. Finding that something may indeed be “lost in translation” means clinicians working with multi-lingual families should be attentive to perceived differences, assess the perspectives of all relevant stakeholders, and take time to address these differences in therapy prior to moving forward with treatment recommendations.

Author Contributions: Conceptualization, A.J.B. and A.M.; Data curation, L.E.G. and A.M.; Formal analysis, A.J.B. and L.E.G.; Investigation, A.M.; Project administration, L.E.G.; Resources, A.J.B.; Writing – original draft, A.J.B. and L.E.G.

Funding: U.S. Department of Health and Human Services: D40HP29826-01-01.

Conflicts of Interest: The authors declare no conflict of interest.

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