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Parent Preferences and Experiences with Psychological Treatment: Results from a Direct-to- Consumer Survey using the Marketing Mix Framework

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Abstract

Direct-to-consumer (DTC) marketing strategies represent an increasingly popular approach to promote patient awareness of psychological treatments (PTs). The Marketing Mix is a well-established framework used to inform marketing decisions consisting of four "P's": Product (or Service), Promotion, Place, and Price. We conducted the first DTC marketing survey using the Marketing Mix framework to explore how parents concerned about their adolescents' behavioral health receive information about PTs. A sample of 411 parents (51% girls, 82% Non-Hispanic White) of 12- to 19-year-old adolescents completed an online survey asking how they would prefer to receive information about PTs, including five questions spanning the Promotion, Price, and Place dimensions of The Marketing Mix. A subsample of 158 parents also reported on how they had received PT information during their adolescent's most recent therapy experience, allowing us to compare ideal versus actual therapy experiences. We explored the extent to which experiences varied as a function of parent race/ethnicity, income per capita, parent education level, and adolescent treatment history. Bivariate analyses and multivariate logistic regressions were used to examine which of these variables were associated with parents' responses to specific survey items. Analyses revealed that parent preferences varied as a function of income per capita, education level, and history of treatment. In addition, there were significant gaps between parents' ideal and most recent therapy experiences. Implications for the marketing of PTs are discussed.

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The need to address the treatment gap among adolescents with mental health and substance use (M/SU) disorders has been recognized as a critical initiative by researchers, clinicians, insurers, funding agencies, and policy makers (Institute of Medicine, 2001, 2006). Adolescent M/SU disorders are associated with a range of negative long-term outcomes including diagnoses that persist into adulthood, school failure, accidents, criminal involvement, unintended pregnancy, and suicide (Children's Mental Health Coalition, 2013; The National Center, 2011). Despite the high prevalence and burden of M/SU problems in this cohort, most adolescents with a diagnosable disorder do not receive treatment: less than 50% of adolescents with a mental health diagnosis and less than 10% of adolescents with a substance use disorder receive any specialty care (Center for Behavioral Health Statistics and Quality, 2016). Furthermore, the few youth who do receive treatment often experience long delays between disorder onset and treatment utilization (Wang et al., 2005). Consensus guidelines emphasize the use of psychological treatments (PTs) to target M/SU disorders (Chorpita et al., 2011; Steele, Elkin, & Roberts, 2008), but usage of PTs has been steadily declining, while usage of psychiatric medications has been on the rise (Olfson, Druss, & Marcus, 2015).

Researchers have argued that the diminishing utilization of PTs for M/SU disorders may in part reflect lack of awareness among the general population about advances in psychological intervention science (Gallo, Comer, Barlow, Clarke, & Antony, 2015). To date, efforts to increase PT utilization have predominantly focused on treatment providers – both in specialty and allied health services – as the target audience of outreach efforts (Author Blind, 2015a). By targeting barriers to treatment utilization at the provider-level such as provider knowledge, willingness, and skill, these efforts aim to increase the *supply* of psychological treatments offered in the community. However, a key limitation of these approaches is that they do not consider patient-level barriers that contribute to unmet need for treatment, such as lack of knowledge about or motivation to pursue PT, perceived stigma about receiving therapy, or a belief that M/SU problems can be solved without help (Corrigan, Druss, & Perlick, 2014; Gallo, Comer, & Barlow, 2013). It is well established that patient-level barriers are especially pronounced among historically disadvantaged patient groups, such as racial/ethnic minorities and those of lower socio-economic status (Alegria, Vallas, & Pumariega, 2010; Gone & Trimble, 2012; Steele, Dewa, & Lee, 2007). Anticipating and addressing these patient-level barriers is critical to ensure sufficient consumer *demand* for PTs, particularly in underserved communities.

Direct-to-consumer (DTC) marketing represents a complementary paradigm to traditional provider-directed strategies. In contrast to traditional approaches that attempt to "push" PT to patients through treatment providers, a DTC approach attempts to increase awareness of and demand for PT, and in a way, "pull" PT through the service system (Author Blind, 2015a, 2015b; Gallo et al., 2013). Within the pharmaceutical industry, analyses of DTC expenditures suggest that every $1 invested in DTC marketing translates to $4.20 in

increased pharmaceutical sales (Rosenthal, Berndt, Donohue, Epstein, & Frank, 2003). Moreover, a recent systematic review (Authors blind, 2016a) found that DTC marketing is associated with both increased requests for medication by patients and increased prescribing by treatment providers. These data suggest that proactive efforts to market PTs could potentially affect both patient and provider-level behavior.

In the marketing literature, a dominant framework for informing marketing management decisions is called the Marketing Mix, or the "4 P's" (Zeithaml, Bitner, & Gremler, 2012, p. 25). The Marketing Mix was first developed over 50 years ago and it has become one of the most widely used strategies for market planning. Each P stands for a broad set of marketing decisions that need to be made: Product (or Service), Promotion, Place, and Price. The Product (or Service) dimension refers to the attributes of the specific service that consumers most value. Promotion explores how and from whom the consumer prefers to receive information, while Place explores where the consumer prefers to receive the service. Price pertains to the costs the consumer is willing to tolerate and encompasses both direct financial costs (i.e., session co-payments) and intangible costs (i.e., time investment required). Often in the PT literature, efforts to promote DTC marketing have focused on only the "Promotion" domain (see Friedberg & Bayer, 2017 for a review), which refers to how the service is actively promoted and advertised to consumers. However, a comprehensive DTC marketing strategy should be predicated on understanding of all four dimensions. As noted in various marketing blogs, (DelMonte, Goodman, & Kane, 2007; Jensen, 2012) the goal of a successful marketing strategy is to "put the right service in the right place at the right time and the right price." Recent manuscripts have considered how the Marketing Mix might apply to the delivery of PTs for M/SU (Author blind, 2015a, 2015b), but the Marketing Mix framework has never been used to gather information from potential consumers of PTs in order to identify opportunities to improve DTC marketing.

Another key consideration of employing the Marketing Mix as a data collection tool is that data about consumers' ideal experiences in isolation are not as informative as data comparing consumers' ideal with their actual experiences. Such comparisons enable a more nuanced understanding of consumer preferences by identifying gaps between what consumers would ideally like to experience and what they actually experienced when seeking PT. A comparative approach is arguably most valuable when gathering data about the Price dimension because there is a well-established disconnect between consumers' stated willingness to pay for services under hypothetical circumstances and what consumers are willing to pay in practice (see Loomis, 2011). Specifically, multiple studies have found that consumers report being willing to pay significantly higher rates than they will actually pay when observed (i.e., hypothetical bias; Murphy, Allen, Stevens, & Weatherhead, 2005). The reasons for this discrepancy are believed to be multi-faceted and include factors such as social desirability and conformity (i.e., selecting a price that the consumer thinks is desirable; Loomis, 2014), wishful thinking (i.e., selecting a price that the consumer wishes they could afford; Ready, Champ & Lawton., 2010), and context-specific responding (i.e., selecting a price that is salient based on the context; Loomis, 2014). For these reasons, attempts to gather data using the Marketing Mix should ideally include information about consumers' stated (ideal) experiences as well as their actual behavior.

To extend prior literature, we conducted the first survey of parents or legal guardians (hereafter referred to as “parents” for simplicity) of adolescents with, or at risk of, behavioral health problems using the Marketing Mix. The current analysis focused specifically on the Promotion, Place, and Price dimensions, as the Product dimension was the focus of prior studies by our team (Authors Blind, 2016b, submitted). Our analysis was guided by three objectives. First, we aimed to examine both parents’ preferences and actual behavior across each Marketing Mix dimension. Specifically, we asked parents how they preferred to learn about treatment (Promotion), where they preferred to receive treatment (Place), and the financial and time costs they were willing to spend for treatment (Price). We also asked parents to report on their most recent therapy experience across these domains. Second, we assessed whether parent preferences for ideal services and parents’ actual behavior varied as a function of key socio-demographic and clinical factors that have been shown to influence consumers’ reactions to DTC marketing, including race/ethnicity, income per capita, education level, and therapy history. Finally, we examined discrepancies between parents’ ideal and most recent treatment experiences to identify unmet treatment needs that could represent areas for targeted improvement, as well as potential reporting biases (Deshpande, Menon, Perri III, & Zinkhan, 2004; Soneji, Ambrose, Lee, Sargent, & Tanski, 2014).

Our analyses were intended to be exploratory in nature in order to inform decision-making around DTC marketing. However, we did have two a priori hypotheses related to the Price dimension. First, we predicted that parent responses to the Price items would vary as a function of income per capita. Specifically, we expected that parents with lower income per capita would report spending less per session under both ideal and most recent circumstances, relative to parents with higher income per capita. Second, we expected to find gaps between parents’ ideal and most recent treatment experiences in the Price dimension, with parents reporting that were willing to spend more and travel further than they actually did in practice. Because there has been no prior research on the Promotion or Place dimensions in the context of PTs, we did not have any a priori hypotheses for these dimensions.

Methods

Sampling Strategy and Procedures

From April 2015 to March 2016, parents of adolescents were reached via advertisements emailed to parents at six Rhode Island high schools, posted to private parent Facebook groups, and posted to listservs of behavioral health providers. Advertisements solicited parents to participate in a survey on impressions of adolescent behavioral health treatment and asked interested parties to complete an online screener. To qualify, respondents had to meet three criteria: 1) be the legal guardian of an adolescent aged 12 to 19; 2) reside in the United States; and 3) report elevated concerns about their adolescent’s substance use (i.e., score of 4+ on a 5-point Likert scale; 1 = “not at all” to 5 = “extremely” concerned). We screened specifically based on parental concern about substance use and not mental health, because this survey was part of a larger program of research focused on improving the utilization of treatment among adolescents with substance use problems. In addition, we

focused on parents' subjective concern about substance use rather than using more objective measures of substance use severity, based on previous research by our team and others indicating that subjective impressions of behavioral health motivate treatment-seeking behavior more than objective symptoms (Author et al., 2016b; Hunt & McKenna, 1993). Although screening focused specifically on parental concern about substance use, as elaborated below in Sample Characteristics, the final sample also reported extremely high rates of concern about mental health problems. As a result, study findings are likely to have implications for parents concerned about both substance use and mental health.

Multiple electronic safeguards were used to ensure the validity of responses: extraneous questions to mask eligibility criteria, cookies to prevent duplicate entries, IP address confirmation, captcha verification, survey tagging to prevent search engine indexing, and a multiple-choice item asking how respondents heard about the survey that included "false" recruitment options. Because no identifying information was collected, the study was deemed exempt by the University IRB board.

Eligible participants were sent one of two surveys. Parents of adolescents who had not previously received M/SU treatment received a short version of the survey that assessed: 1) preferred methods of provider selection (focus of this study); 2) impressions of evidence-based therapy; 3) attributes of their ideal therapist; and 4) demographics/clinical characteristics of their family. Parents whose adolescents had previously received therapy received a longer version of the survey that contained all of the aforementioned items, as well as questions pertaining to their adolescent's most recent therapy experience. Respondents were compensated with a $10 or $20 Amazon e-gift card, with the longer survey providing greater compensation.

Sample Characteristics

The screener was completed by 845 individuals, with 499 (59%) eligible to participate. Among the 350 (41%) deemed ineligible, the most common reason for exclusion was a lack of parent concern about substance use (n=121). An additional 11 parents were excluded for not having an adolescent in the required age range. The remainder were excluded due to the following safety checks: IP address did not match their reported location (n=106), IP or email address had previously been used (n=60), or selection of a "false" recruitment response (n=45).

Of the 499 deemed eligible, 411 (82%) completed the survey. Completers reported being recruited through advertisements distributed to schools (45%), provider listservs (40%), and Facebook groups (15%). Most parents (62%) completed the short version (median response = 25.0 minutes) with the rest completing the long version (median response = 35.0 minutes).

The sample was predominantly female (86%) and biological parents (91%). Parent respondents were 88% Non-Hispanic White, 4% Hispanic, 3% Black/African-American, 3% Asian/Asian-American, and 2% biracial or another ethnicity. Eighty percent of parents were from the New England region. The parents' adolescents were 51% female and 82% Non-Hispanic White with an average age of 16.1 years (SD = 1.8). Parent responses to a brief screening inventory (i.e., Global Appraisal of Individual needs - Short Screener; Dennis,

Feeney, Stevens, & Bedoya, 2008) indicated that 61% of adolescents had clinically significant externalizing behavior problems, 51% had clinically significant internalizing problems, 39% had current substance use problems, and 25% had current legal problems. In total, 78% of adolescents had clinically significant problems across at least one of the four domains, and 58% had problems across two or more. Of note, mental health problems were more common than substance use problems in the final sample. Combined, these data indicate that the current sample represented parents of adolescents with or at risk for clinically significant mental health and/or substance use problems.

Survey Items

The present analyses included five survey questions covering the Price, Place, and Promotion dimensions of the Marketing Mix (see Table 1). Initial response options for all survey items were developed based on parent feedback from a previous qualitative study (Authors Blind, 2015b, 2016b). All 411 parents reported on their ideal therapy experience, while the subsample of 158 parents who completed the longer survey answered a parallel set of questions about their teen's most recent therapy experience. For the Promotion domain, parents were first asked from whom they would prefer to receive information about therapy (Promotion 1). Response options for this item reflected the terms most commonly used by parents in the prior qualitative study and often encompassed the full range of providers in a specific setting. For instance, the term "pediatrician or primary care doctor" was the term most commonly used by parents to describe any provider in the primary care setting, including nurse practitioners, physician assistants, embed behavioral health workers, and other non-physicians. Likewise, "school counselor or other school official" was the term most commonly used to describe guidance counselors, school psychologists, teachers, and other key personnel in the school setting. Parents were also asked about the different channels through which they would prefer to receive information such as websites, brochures, radio, billboards, and television (Promotion 2).

In the Place domain, a single question (Place 1) evaluated where parents would prefer to receive therapy. Finally, in the Price domain, two questions assessed therapy costs that parents were willing to incur for ideal therapy: out-of-pocket financial costs (Price 1) and time spent commuting (Price 2). Price items were administered with ordinal response options that were later transformed to continuous variables to facilitate analyses. For example, Price Item 2 initially asked parents how much they were willing to pay in increments of $10; the median value within each increment was then used to calculate a continuous variable (i.e., $1–$10 became $5.50).

Analytic Plan

Prior to hypothesis testing, we examined bivariate correlations among the moderators: parent race/ethnicity, education level, income per capita, and adolescent's therapy history. Moderator variables were dichotomized: parent race/ethnicity (Caucasian/Non-Hispanic vs. minority), income per capita (< $25,000 vs. $25,000+), parent education (no degree vs. Bachelor's or higher), and adolescent therapy history (any vs. none). Using the phi coefficient for binary variables, there were significant, but small associations among all four

moderators (ϕ's <.18, p's <.038), except for income and education, which had a moderate association (ϕ =.45, p <.001). No associations were large enough to preclude multivariate analysis.

Three sets of analyses were conducted. First, we examined response distributions for parents' ideal experiences on each Marketing Mix item, then used chi-square analyses to determine whether responses varied as a function of the putative moderators. These analyses separately examined the influence of each moderator on parents' survey responses. If more than one moderator was significantly associated with response selections, we then used multivariate regression to determine the impact of each moderator. Logistic regression was used for binary outcome variables and linear regression for continuous outcome variables. Next, the same analytic approach was used on data from the subset of parents whose adolescents had a history of therapy, in order to examine parents' actual behavior across the Marketing Mix dimensions. Therapy history was not included as a moderator in these analyses, as all respondents had prior therapy experience. Finally, within the subset of parents whose adolescents had a history of therapy, we examined differences between their ideal and most recent treatment experience. For the nominal variables in the Promotion and Place dimensions, we used paired t-tests comparing the proportion of parents selecting a specific response in the ideal question relative to the proportion selecting the same response in the most recent therapy question. For the continuous variables in the Price dimension, we used paired t-tests comparing item means.

Results

Parent Ideal Experiences

Table 2 depicts responses to the five survey items about parents' ideal therapy experiences as a function of the putative moderators. For Promotion Item 1 (i.e., from whom parents prefer to hear about therapy), most parents selected *Pediatrician* or *Another Parent*. However, several significant differences were found as a function of adolescent therapy history. Relative to those with therapy experience, significantly more therapy-naïve parents preferred to receive information from a *School Counselor* or *Another Parent*, and fewer selected a

***Pediatrician* or a *Friend/Family Member*—**For Promotion Item 2 (i.e., channels through which parents prefer to receive information), most parents selected a *Brochure* or *Website. Brochure* was an especially popular choice among parents with a college degree. *Television* was endorsed by relatively fewer parents (27.3%) compared to *Websites* (68.1%) and *Brochures* (68.1%), though there were differences by education and income per capita. Relative to parents with a college degree and those with higher income per capita, more of those with lower education and income selected *Television*. Multivariate logistic regression controlling for both education and income per capita revealed that education was the more influential predictor: higher-educated parents had lower odds of preferring *Television* relative to lower-educated parents [OR = 0.58, 95% CI 0.35 to 0.96], whereas income was no longer significant.

In the Place dimension (i.e., where parents prefer to receive treatment), most preferred a *Center Focused on Adolescents*, though differences emerged by education and therapy

history. More parents without a degree selected a *Center Focused on Substance Use* and fewer selected a *Center Focused on Adolescents*. Meanwhile, more therapy naïve parents selected a

***Pediatrician's Office* and fewer selected a *Center Focused on Mental Health*—** Finally, in the Price dimension, differences emerged as a function of therapy history, income, and education. For Price Item 1 (i.e., how far parents are willing to travel for therapy), parents were willing to travel an average of 37.6 minutes. However, parents with prior therapy experience were willing to travel about 4.5 minutes less than treatment-naïve parents. For Price Item 2 (i.e., how much parents are willing to pay), parents were willing to pay $42.10 on average, though parents without college degrees and parents with a lower income per capita were willing to pay an average of $9.43 and $13.55 less, respectively. A follow-up multivariate regression found that only income per capita predicted willingness to pay: when controlling for education, higher income parents were willing to pay $11.93 more for therapy than lower income parents [$B = 11.93$, $SE = 2.48$, $p < .001$].

Parent Most Recent Experience

Parents' responses to items about their most recent therapy experiences are in Table 3. For Promotion Item 1, most parents reported that they had received information about treatment from their *Pediatrician* or *Insurance Company*. However, a greater proportion of parents with a degree and with higher income per capita reported receiving information from a *Friend/Family Member*. A follow-up logistic regression showed that when both education and income per capita were included as predictors, only education remained significant [OR = 4.84, 95% CI 1.59, 14.73]. For Promotion 2, *Brochures* and *Websites* tied as the most popular channels through which parents had received information; this did not vary by any of the putative moderators.

When asked about the Place dimension, most parents reported that their adolescent received therapy in a *Center Focused on Mental Health*, though this option was reported significantly less often by parents without a college degree than those with a degree.

Finally, in the Price dimension, parents reported that they spent an average of 23.2 minutes commuting and paid an average of $23.00 per session. Relative to those parents without a college degree and those with lower income per capita, parents with a degree and income per capita over $25,000 spent about $13–15 more per session. A follow-up multivariate regression revealed that only income remained a significant predictor of amount paid out of pocket: higher income parents paid $12.03 more for therapy than their lower-income counterparts, even when controlling for education level [$B = 12.03$, $SE = 4.01$ $p = .003$].

Comparison of Parent Ideal and Most Recent Experiences

The final set of analyses focused on the subset of 158 parents with experience in therapy and compared their ideal and most recent therapy experiences (Table 4). Significant differences were found across all three of the focal Marketing Mix dimensions. In the Promotion dimension, significantly more parents reported that they would prefer to receive information from *Another Parent* than had actually done so. Additionally, significantly more parents

preferred to get information from *Websites, Brochures, Social Media,* and *Television* than had actually received information from these channels. Conversely, significantly fewer parents preferred getting information from their *Insurance Company* or *Friends/Family* than had relied upon on these referral sources. The Place item revealed that significantly more parents would prefer to receive services in a *Center Focused on Adolescents* than had received services in this setting. In contrast, significantly fewer parents wanted to receive treatment in a *Center Focused on Mental Health* or at the *Adolescent's School* than had done so. Finally, the questions about Price revealed significant differences between the costs parents reported being willing to incur and how much they actually incurred during their last therapy experience. Specifically, parents reported being willing to commute 11.6 minutes further and being willing to pay $19.00 more per session than they had done in their last therapy experience.

Discussion

This study used the Marketing Mix framework to assess parents' ideal experiences seeking PT, their most recent PT experiences, and discrepancies between their ideal and most recent experiences. The goal of this study was to inform decision-making around DTC marketing. Of note, parents were recruited based upon concern about their adolescents' substance use, but the final sample reported high rates of concern about both substance use and mental health. In addition, the focal survey questions asked about PT in general and did not focus specifically on PT for substance use. For these reasons, the present results are likely to be generalizable to parents concerned about both mental health and substance use.

Findings revealed parents' ideal and most recent treatment experiences across Promotion, Place, and Price dimensions. Experiences across all three dimensions varied as a function of several moderators that have been shown to influence consumers' responses to DTC marketing; most notably, results varied by adolescent therapy history, income per capita, and parent education level, with no differences found as a function of parent race/ethnicity. Moreover, there were significant discrepancies between parents' ideal and most recent treatment experiences. Key findings across each of the three Marketing Mix dimensions are discussed in turn below.

Promotion

Consistent with efforts to integrate behavioral health screening into primary care (Butler et al., 2008; Saitz & Daaleman, 2017), the majority of parents preferred to receive information about therapy from pediatricians and, in reality, most parents reported that they had done so. However, preferences varied as a function of the teen's therapy history. Specifically, more therapy-experienced parents preferred to receive information from another parent or school counselor, while more therapy-naïve parents preferred to get information from a pediatrician or friend/family member. Several significant gaps were also detected between parents' ideal and most recent therapy experiences. More parents wanted to receive information from other parents and fewer wanted information from insurance companies and friends/family than they had actually received. One potential explanation for these results is that parents with a therapy history are more likely to appreciate the input of individuals with shared experience

and intimate knowledge of problems related to adolescence. It is also possible that parents would prefer to connect with other experienced parents, but may be restrained by factors such as insurance coverage, difficulty identifying other parents whose teens have received treatment, or an unwillingness to disclose their teen's concerns.

Differences were also detected in how parents preferred to receive treatment information, with education emerging as the most significant predictor. Most parents preferred to receive information via websites or brochures, and these were the channels most frequently accessed in practice. However, more parents without a college degree preferred television while more college-educated parents preferred brochures. Ideal versus actual experiences differed by almost every means of information dissemination. More parents wanted to get information via a website, social media, brochure, or television ads than they had actually received in their most recent experience. These results underscore the lack of accessible information on PTs across multiple channels and highlight opportunities to more effectively reach specific groups of parents. Implications for DTC marketing are discussed below.

Place

Although no hypotheses had been made in the Place dimension, a number of unexpected findings emerged. Most parents preferred to receive M/SU services at a center for adolescents and virtually no parents preferred services in schools. Several differences were found by education and therapy history; more college-educated parents preferred a center focused on adolescents and did not prefer a substance use center, while more therapy-experienced parents preferred a mental health center and did not prefer a pediatrician's office. By contrast, most parents had previously received therapy at mental health centers, with rates being especially high among those with college degrees. Not surprisingly, there were significant differences between ideal and actual treatment experiences. Far more parents preferred to receive therapy in a center for adolescents than had done so, and far fewer wanted therapy at a mental health center than had done. It is worth noting that differences between ideal and actual experiences were largest on the Place dimension. When considering that all parents were concerned about substance use, the significant preferences for a center focused on adolescence might reflect a perception that substance use problems are a normal adolescent phenomenon that do not warrant specialty care (Schulenberg & Maslowsky, 2009). This suggests that psychoeducation about M/SU disorders and appropriate treatment might be warranted. Alternatively, the large gaps between ideal and most recent service settings could reflect limited availability of specialty adolescent M/SU services in the community (American Psychological Association, 2017).

Price

In contrast to the Promotion and Place dimensions, questions regarding Price assessed *willingness* to pay for an ideal therapist rather than the *ideal* amount that parents would pay for treatment. Consistent with hypotheses, parents with lower income and less education reported that they were willing to pay less for therapy, and that they paid less in practice; in both cases, income was a more significant predictor than education. On the second Price item, treatment-naïve parents were willing to commute a small but significant amount of time longer than parents whose teens previously received therapy.

When comparing ideal and most recent experiences, parents reported that they were willing to pay more and travel further for ideal therapy than they actually did; this is consistent with our hypotheses and with prior research on the discrepancy between willingness to pay and actual behavior (Loomis, 2011). There are several factors specific to the financial cost of therapy that may explain gaps between reported willingness to pay and actual amount paid. For example, insured parents may be willing to pay a higher amount for therapy, but their coverage ultimately determines their out-of-pocket copayment. Similarly, many clinics offer a sliding scale fee that varies by income (Cummings, Case, Ji, & Marcus, 2016), which could explain the finding that parents with lower income reported paying less for therapy. It is also possible that the gaps reflect familiarity with M/SU services, such that, when seeking services, parents learn that they do not need to spend as much or travel as far they might be willing. Results regarding price suggest that costs of therapy are variable, socio-economic factors predict preferred and actual behavior, and parents may be exhibiting a hypothetical bias (i.e., over-reporting their willingness to pay; Murphy et al., 2005). The dearth of research on this topic makes it difficult to determine the "right" price for therapy. The role of insurance plan copayments, sliding scale fees, and seeking out affordable therapy should be considered in future research examining consumers' reactions to the price of PTs.

Limitations

Results from this study should be considered within the context of several limitations. First, the study recruited a convenience sample to complete an internet survey, and thus may not be representative of all parents concerned about their adolescent's M/SU. The sample was predominantly from the New England region, non-Hispanic Caucasian, fairly well educated, and had an average income per capita above the poverty line. It is possible that the sample composition may have limited our ability to detect differences between racial/ethnic groups. Yet even within this convenience sample, significant differences emerged as a function of education level, income per capita, and therapy history, suggesting that these are important socio-demographic and clinical characteristics to consider in future DTC marketing initiatives. Second, survey items for this study were developed based on the Marketing Mix dimensions and based on prior qualitative research (Author blind, 2016b), but they have not been psychometrically validated. Development and validation of measures to assess key constructs is a priority for future DTC marketing research. Third, we cannot conclude the extent to which parental concerns about mental health and substance use might vary or interact. Additional studies are needed to tease apart the effects of parental concern about mental health and substance use, and to examine the potential interactive effects between the two. Finally, we can only speculate as to why we found differences between parents' ideal and actual experiences. Ideal experiences reflected parents' preferences for future services whereas actual experiences reflected parent report of their adolescents' most recent therapy experience. The differences we found between these two constructs (i.e., preferences and most recent behavior) could reflect reporting biases, limited availability of preferred services, or changes in preferences due to past treatment experiences. Future researchers should consider conducting a longitudinal experiment in which treatment-naïve participants report on their ideal experiences, pursue services, and then report on their actual experiences/behaviors.

Marketing Implications

Notwithstanding these limitations, findings from this study have a number of important real-world implications for the application of DTC marketing of PTs. First, parents' desire to receive information from other parents, combined with their appreciation of websites and brochures, suggests that strategic placement of parent testimonials about PTs might be particularly powerful. Use of testimonials is common in marketing of professional services, especially with services that are intangible or difficult to define, like PTs (Martin, 2007: Zeithaml et al., 2012). Importantly, the use of testimonials for PTs carries unique ethical concerns, namely the need for non-coercive solicitation and blinding to safeguard patient privacy (Huggins, 2013). Several evidence-based PTs have successfully integrated testimonials into their marketing materials (see: Parent-Child Interaction Therapy, www.pcit.org/media/parent-testimonials-about-pcit) and could serve as a model for how to appropriately solicit them. Researchers too have begun to explore the use of testimonials to engage underserved populations. In a recent randomized control trial testing PT engagement strategies among minority parents, participants indicated that they would only attend a PT endorsed by other parents, prompting researchers to incorporate testimonials in their multi-component engagement package (Winslow et al., 2016). Our findings suggest that brochures and websites that provide parents with testimonials could be a powerful DTC marketing approach and facilitate parental engagement.

Second, our findings suggest that primary care offices represent an attractive place to market PTs, especially for therapy-naïve adolescents. The placement of brochures and information about websites could be particularly appealing in this setting, given parent preferences for these promotion channels. Third, though television ads might not be appropriate to communicate with broad swaths of parents, such ads could help to specifically target parents from lower education and lower income backgrounds. Fourth, our results suggest that providers seeking to market their clinics might choose to emphasize their expertise with adolescent developmental issues, as settings focused on adolescents were preferred by many parents. Fifth, parents reported being willing to spend more out-of-pocket and travel farther than they actually did during their most recent therapy experience. This has important implications for providers giving referrals to PTs; these providers would likely benefit from being conservative when considering a patient's willingness to pay. Finally, and most importantly, our results suggest that PTs should be marketed more proactively, as more parents wanted information about therapy from websites, brochures, social media, and television than they had previously received, underscoring their thirst for information across the board.

When considering the aforementioned implications, a critical consideration is who should ultimately bear responsibility for funding and initiating the marketing of PTs. Because the pharmaceutical industry is for-profit and comprised of multiple big organizations, decisions about who bears the responsibility for funding and initiating DTC marketing are relatively straight-forward. By contrast, the PT field is comprised of many individual providers and smaller organizations which presumably lack the means for large-scale marketing. It is encouraging to note that in recent years, several national M/SU organizations that collect professional dues (e.g., Association for Behavioral and Cognitive Therapies; American

Psychological Association) have begun developing DTC marketing materials to promote the utilization of PTs. Our results suggest that such efforts are valued by parents and could be expanded across a number of channels. While implications about how individual providers should fund DTC marketing are beyond the scope of this analysis, providers who disseminate information for their own practices could consider providing basic information about PTs or linking to these larger organizations to give parents access to this information. Systematic evaluations of how to best fund and sustain DTC marketing efforts represents a critical area for future research.

Taken together, results of this study suggest that clinicians and researchers should be mindful of parent preferences when selecting methods to disseminate and market PT information. In addition, clinicians would be prudent to consider the target audience of their marketing efforts and tailor information accordingly, as parent preferences varied as a function of key socio-demographic and clinical characteristics (i.e., education level, income per capita, therapy history). By identifying the areas in which respondents are not receiving PT information from where, from whom, and how they would prefer, this study highlights several avenues via which DTC marketing of PTs can be better tailored to reach consumers of M/SU services.

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References

Alegria VallasPumariega. Racial and Ethnic Disparities in Pediatric Mental Health. Child and Adolescent Psychiatric Clinics of North America. 2010; 19(4):759–774. DOI: 10.1016/j.chc.2010.07.001 [PubMed: 21056345]

American Psychological Association. Strengthening the child and adolescent workforce. 2017. http://www.apa.org/about/gr/issues/cyf/child-workforce.aspx

Author blinded manuscripts: 2015a, 2015b, 2016a, 2016b, submitted

Butler M, Kane RL, McAlpine D, Kathol RG, Fu SS, Hagedorn H, Wilt TJ. AHRQ Evidence Reports: Evidence Reports/Technology Assessments, No. 173. Rockville, MD: Agency for Healthcare and Research Qualilty; 2008. Integration of mental health/substance abuse and primary care.

Center for Behavioral Health Statistics and Quality. Key substance use and mental health indicators in the United States: Results from the 2015 National Survey on Drug Use and Health. 2016. (HHS Publication No. SMA 16–4984, NSDUH Series H-51). Retrieved from http://www.samhsa.gov/data/

Children's Mental Health Coalition. Improving lives, avoiding tragedy. 2013. Retrieved from https://www.aacap.org/App_Themes/AACAP/docs/Advocacy/policy_resources/Children's_Mental_Health_Fact_Sheet_FINAL.pdf

Chorpita BF, Daleiden EL, Ebesutani C, Young J, Becker KD, Nakamura BJ, … Starace N. Evidence-based treatments for children and adolescents: An updated review of indicators of efficacy and effectiveness. Clinical Psychology Science and Practice. 2011; 18(2):154–172. DOI: 10.1111/j.1468-2850.2011.01247.x

Corrigan PW, Druss BG, Perlick DA. The impact of mental illness stigma on seeking and participating in mental health care. Psychological Science in the Public Interest. 2014; 15(2):37–70. DOI: 10.1177/1529100614531398 [PubMed: 26171956]

Cummings J, Case B, Ji X, Marcus S. Availability of youth services in U.S. mental health treatment facilities. Administration and Policy in Mental Health. 2016; 43(5):717–27. DOI: 10.1007/s10488-015-0685-2 [PubMed: 26467795]

DelMonte D, Goodman B, Kane E. Right product, right place, right time. 2007. Jul 18, Retrieved from http://www.sdcexec.com/article/10289735/right-product-right-place-right-time

Dennis ML, Feeney T, Stevens L, Bedoya L. Global Appraisal of Individual Needs–Short Screener (GAIN-SS) (Version 3). Normal, IL: Chestnut Health Systems; 2008. Retrieved from http://www.gaincc.org/products-services/instruments-reports/gainss/

Deshpande A, Menon A, Perri M III, Zinkhan G. Direct-to-consumer advertising and its utility in health care decision making: A consumer perspective. Journal of Health Communication. 2004; 9(6):499–513. DOI: 10.1080/10810730490523197 [PubMed: 15764449]

Friedberg RD, Bayar H. If It Works for Pills, Can It Work for Skills? Direct-to-Consumer Social Marketing of Evidence-Based Psychological Treatments. Psychiatric Services. 2017; 68(6):621–623. DOI: 10.1176/appi.ps.201600153 [PubMed: 28093057]

Gallo KP, Comer JS, Barlow DH. Direct-to-consumer marketing of psychological treatments for anxiety disorders. Journal of Anxiety Disorders. 2013; 27(8):793–801. DOI: 10.1016/j.janxdis.2013.03.005 [PubMed: 23602058]

Gallo KP, Comer JS, Barlow DH, Clarke RN, Antony MM. Direct-to-consumer marketing of psychological treatments: A randomized controlled trial. Journal of Consulting and Clinical Psychology. 2015; 83(5):994–998. DOI: 10.1037/a0039470 [PubMed: 26098374]

Gone JP, Trimble JE. American Indian and Alaska Native mental health: Diverse perspectives on enduring disparities. Annual Review of Clinical Psychology. 2012; 8:131–160. DOI: 10.1146/annurev-clinpsy-032511-143127

Huggins R. Ethical and effective practice marketing: Online local business listings. Person Centered Tech. 2013. Retrieved from: https://personcenteredtech.com/2013/04/18/ethical-effective-practice-marketing-online-local-business-listings/

Hunt SM, McKenna SP. Measuring quality of life in psychiatry. Quality of Life Assessment: Key Issues in the 1990s. 1993; :343–354. DOI: 10.1007/978-94-011-2988-6_20

Institute of Medicine. Crossing the Quality Chasm: A New Health System for the 21st Century. Washington, D.C: National Academy Press; 2001.

Institute of Medicine. Improving the Quality of Health Care for Mental and Substance-Use Conditions. Washington, D.C: National Academy Press; 2006.

Jensen S. What marketers need to deliver the right product, right place & right time. 2012. Retrieved from https://blogs.oracle.com/marketingcloud/modern-marketing-right-product-place-time

Loomis J. what's to know about hypothetical bias in stated preference valuation studies? Journal of Economic Surveys. 2011; 25(2):363–370. DOI: 10.1111/j.1467-6419.2010.00675.x

Loomis JB. Strategies for overcoming hypothetical bias in stated preference surveys. Journal of Agricultural and Resource Economics. 2014; 39(1):34–46.

Martin MM. Services Marketing: Focus on Service Characteristics to Create Competitive Advantage. Cascade Business News. 2007. Retrieved from: http://cascadebusnews.com/business-tips/marketing/176-services-marketing-focus-on-service-characteristics-to-create-competitive-advantage

Murphy JJ, Allen PG, Stevens TH, Weatherhead D. A meta-analysis of hypothetical bias in stated preference valuation. Environmental & Resource Economics. 2005; 30(3):313–325. DOI: 10.1007/s10640-004-3332-z

Olfson M, Druss BG, Marcus SC. Trends in mental health care among children and adolescents. New England Journal of Medicine. 2015; 372(21):2029–2038. DOI: 10.1056/NEJMsa1413512 [PubMed: 25992747]

Ready RC, Champ PA, Lawton JL. Using respondent uncertainty to mitigate hypothetical bias in a stated choice experiment. Land Economics. 2010; 86(2):363–381. DOI: 10.2202/1558-9544.1044

Rosenthal MB, Berndt ER, Donohue JM, Epstein AM, Frank RG. Demand effects of recent changes in prescription drug promotion. Frontiers In Health Policy Research. 2003; 6(1):1–26. DOI: 10.2202/1558-9544.1044

Saitz R, Daaleman TP. Now is the Time to Address Substance Use Disorders in Primary Care. Annals of Family Medicine. 2017; 15(4):306–308. DOI: 10.1370/afm.2111 [PubMed: 28694263]

Schulenberg JE, Maslowsky J. Taking substance use and development seriously: Developmentally distal and proximal influences on adolescent drug use. Monographs of the Society for Research in

Child Development. 2009; 74(3):121–130. DOI: 10.1111/j.1540-5834.2009.00544 [PubMed: 19930536]

Soneji S, Ambrose BK, Lee W, Sargent J, Tanski S. Direct-to-consumer tobacco marketing and its association with tobacco use among adolescents and young adults. Journal of Adolescent Health. 2014; 55(2):209–15. DOI: 10.1016/j.jadohealth.2014.01.019 [PubMed: 24661738]

Steele L, Dewa C, Lee K. Socioeconomic status and self-reported barriers to mental health service use. The Canadian Journal of Psychiatry. 2007; 52(3):201–206. DOI: 10.1177/070674370705200312 [PubMed: 17479529]

Steele RG, Elkin TD, Roberts M, editorsHandbook of Evidence-Based Therapies for Children and Adolescents. New York, NY: Springer US; 2008.

The National Center on Addiction and Substance Abuse at Columbia University. Adolescent substance use: America's #1 public health problem. New York, NY: CASA Columbia; 2011.

Wang PS, Berglund P, Olfson M, Pincus HA, Wells KB, Kessler RC. Failure and delay in initial treatment contact after first onset of mental disorders in the National Comorbidity Survey replication. Arch Gen Psychiatry. 2005; 62(6):603–613. DOI: 10.1001/archpsyc.62.6.603 [PubMed: 15939838]

Winslow EB, Poloskov E, Begay R, Tein JY, Sandler I, Wolchik S. A randomized trial of methods to engage Mexican American parents into a school-based parenting intervention. Journal of Consulting and Clinical Psychology. 2016; 84(12):1094– 1107. DOI: 10.1037/ccp0000140 [PubMed: 27599226]

Zeithaml V, Bitner MJ, Gremler D. Services Marketing. Vol. 6. New York, NY: McGraw-Hill Education; 2012.

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Public Significance Statement

This study explored when, where, how, and from whom parents worried about their teen's mental health or substance use would prefer to learn about therapy options. We found that parent preferences varied by parent education, income, and the teen's history of therapy. We recommend specific ways that providers can create tailored marketing strategies.

Table 1

Survey Questions about Marketing Mix

Label	Question about Ideal Experience	Question about Most Recent Experience	Response Options
Promotion 1	How would you prefer to find a new therapist for your teen?	How did you find a new therapist for your teen?	• Pediatrician or primary care doctor • School counselor or other school official • Friend or family member • Another parent whose teen has received treatment
Promotion 2	Where would you prefer to see an ad about a therapist or clinic that treats adolescents with SU problems?	Where have you seen an ad about a therapist or clinic that treats adolescents with SU problems?	• Website • Social media • Radio • TV • Brochure • Billboard
Place	Where would you prefer to meet with your teen's therapist?	Where did you meet with your teen's therapist?	• In a treatment center or clinic focused on SU • In a treatment center or clinic focused on MH • In a treatment center or clinic focused on adolescent health in general • In my pediatrician or primary care doctor's office • In my teen's school
Price 1	How long would you be willing to travel for therapy sessions?	How long did you travel for therapy sessions?	• Continuous data: number of minutes
Price 2	How much would you be willing to pay out of pocket for each therapy session?	How much did you pay out of pocket for each therapy session?	• Continuous data: number of dollars

Table 2

Parents' Ideal Therapy Experiences by Race/Ethnicity, Education Level, Income per Capita, and Teen Therapy History (n = 411)

	Race/Ethnicity		Education Level		Income Per Capita		Teen Therapy History		Overall
	Non-Hispanic, Caucasian	**Minority**	**Less than college**	**BA and Above**	**< $25,000**	**$25,000+**	**Yes**	**No**	
Promotion 1: From Whom									
Insurance company	7.7%	14.3%	8.8%	8.5%	11.4%	6.1%	10.8%	7.1%	8.5%
Pediatrician	43.4%	38.8%	46.7%	40.8%	38.9%	46.3%	**34.8%** **	**47.8%** **	42.8%
School counselor	7.5%	8.2%	6.6%	8.1%	7.3%	7.9%	**11.4%** *	**5.1%** *	7.5%
Friend or family	8.3%	12.2%	7.3%	9.6%	7.3%	9.8%	**3.8%** ***	**11.9%** ***	8.8%
Another Parent	29.6%	26.5%	27%	30.5%	33.2%	26.2%	**34.8%** *	**25.7%** *	29.2%
Promotion 2: Which Channel									
Website	68.2%	67.3%	63.5%	70.2%	64.8%	71.5%	65.8%	69.6%	68.1%
Social Media	43.4%	49%	48.2%	42.3%	44.6%	44.4%	48.7%	41.1%	44.0%
Radio	19.3%	20.4%	24.8%	16.9%	23.3%	15.9%	19.0%	19.8%	19.5%
TV	27.1%	28.6%	**37.2%** ***	**22.4%** ***	**33.7%** ***	**22.0%** ***	26.6%	27.7%	27.3%
Brochure	68.8%	63.3%	**59.9%** *	**72.1%** *	63.2%	72.0%	64.6%	70.4%	68.1%
Billboard	10.8%	12.2%	13.1%	9.9%	12.4%	9.8%	13.3%	9.5%	10.9%
Place: Where Receive									
Center focused on SU	7.2%	8.2%	**11.7%** *	**5.1%** *	9.3%	5.6%	4.4%	9.1%	7.3%
Center focused on MH	18.5%	14.3%	20.4%	16.9%	18.7%	17.3%	**28.5%** ***	**11.5%** ***	18.0%
Pediatrician or primary care	8.0%	16.3%	8.0%	9.6%	6.7%	11.2%	**5.1%** *	**11.5%** *	9.0%
Center focused adolescents	53.9%	42.9%	**44.5%** *	**56.3%** *	49.2%	55.1%	51.9%	53.0%	52.6%
Teen's school	1.1%	0%	0.7%	1.1%	1.0%	0.9%	0.0%	1.6%	1.0%
Price 1: Willing to Commute									
Mean (in minutes)	37.4	38.9 ghgj	37.8	37.4	36.4	38.6	**34.8** *	**39.3** *	37.6
Price 2: Willing to Pay									
Mean (in $)	44.5	41.5	**37.8** ***	**47.2** ***	**37.0** ***	**50.5** ***	42.1	45.4	42.1

Note. SU = substance use; MH = mental health; BA = bachelor's degree

†trend $p < .10$,

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$^{*}p < .05$,
$^{**}p < .01$,
$^{***}p < .001$

Table 3

Parents' Most Recent Therapy Experiences by Race/Ethnicity, Education Level and Income per Capita (n = 158)

	Race/Ethnicity		Education Level		Income Per Capita		Overall
	Non-Hispanic, Caucasian	**Minority**	**Less than college**	**BA and Above**	**< $25,000**	**$25,000+**	
Promotion 1: From Whom							
Insurance company	26.7%	16.7%	22.6%	27.6%	20.9%	31.9%	27.2%
Pediatrician	30.8%	33.3%	30.2%	31.4%	29.1%	33.3%	32.3%
School counselor	11.0%	16.7%	5.7%	14.3%	7.0%	16.7%	12.7%
Friend or family	24.7%	16.7%	**9.4%** **	**31.4%** **	**16.3%** *	**33.3%** *	24.7%
Another Parent	15.1%	8.3%	**7.5%**	**18.1%**	17.4%	11.1%	15.2%
Promotion 2: Which Channel							
Website	34.2%	33.3%	28.3%	37.1%	29.1%	40.3%	34.2%
Social Media	23.3%	25.0%	22.6%	23.8%	23.3%	23.6%	23.4%
Radio	14.4%	16.7%	15.1%	14.3%	15.1%	13.9%	14.6%
TV	16.4%	8.3%	17.0%	15.2%	17.4%	13.9%	15.8%
Brochure	34.9%	25.0%	**24.5%**	**39.0%**	**27.9%**	**41.7%**	34.2%
Place 2: Where Receive							
Center focused on SU	6.2%	8.3%	7.7%	5.7%	8.2%	4.2%	6.3%
Center focused on MH	66.4%	50.0%	**50.0%** **	**72.4%** **	58.8%	71.8%	65.2%
Pediatrician or primary care	2.7%	8.3%	5.8%	1.9%	3.5%	2.8%	3.2%
Center focused on adolescents	15.1%	25.0%	**23.1%**	**12.4%**	**21.2%**	**9.9%**	15.8%
Teen's school	4.8%	0.0%	5.8%	3.8%	3.5%	5.6%	4.4%
Price 1: How Far Commute							
Mean (in minutes)	22.7	28.8	23.7	23.0	22.9	23.7	23.2
Price 2: How Much Paid							
Mean (in $)	22.7	25.8	**14.3** **	**27.2** **	**16.2** ***	**31.1** ***	23.0

Note. SU = substance use; MH = mental health; BA = bachelor's degree

† trend $p < .10$,

* $p < .05$,

** $p < .01$,

$^{***}p < .001$

Table 4

Comparison of Parents Ideal and Most Recent Therapy Experience (n = 158)

Item	Ideal Therapy Experience	Most Recent Therapy Experience	T-Test	P-value
Promotion 1: From Whom				
Insurance company	10.8%	27.2%	−4.01	**.000**
Pediatrician	34.8%	32.3%	.69	.494
School counselor	11.4%	12.7%	−.43	.671
Friend or family	3.8%	24.7%	−5.63	**.000**
Another Parent	34.8%	15.2%	4.51	**.000**
Promotion 2: Which Channel				
Website	65.8%	34.8%	6.43	**.000**
Social Media	48.7%	23.4%	5.24	**.000**
Radio	19.0%	14.6%	1.15	.251
TV	26.6%	15.8%	2.86	**.005**
Brochure	64.6%	34.2%	5.92	**.000**
Place: Where Receive Treatment				
Center focused on SU	4.4%	6.3%	−0.90	.367
Center focused on MH	28.5%	65.2%	−8.46	**.000**
Pediatrician or primary care	5.1%	3.2%	1.14	.258
Center focused on adolescents	51.9%	15.8%	8.00	**.000**
Teen's school	0%	4.43%	−2.70	**.008**
Price 1: Willing to Commute				
Mean (in minutes)	34.8	23.2	6.35	**.000**
Price 2: Willing to Pay				
Mean (in $)	42.1	23.0	9.61	**.000**

Note. SU = substance use; MH = mental health