CHRONIC ILLNESS MEDICATION COMPLIANCE: A LIMINAL AND CONTEXTUAL CONSUMER JOURNEY

Abstract

The consumer journey has drawn interest from marketers as an avenue to strengthen sales through managing touch points. However, a firm-centric view has produced limited models of the journey, particularly on consumers' usage experiences over extended periods in everyday settings. We attempt to redress this limitation by studying the situated experiences of disadvantaged consumers endeavoring to comply with medication therapies for chronic hypertension. Our broad aim is to understand more fully the influences on and nature of the journey. We find that compliance is a liminal state of provisional experiences shaped contextually by life spheres of meso-structural conditions, micro-individual factors, and interpretive sense-making practices. We contribute a novel, integrated and nuanced journey framework beyond the detached, steadily progressive model predominant in the literature. Our paper ends with practice, theory, and policy implications for marketing and healthcare, including touch point strategies.

Keywords: consumer journeys, medication compliance, post-purchase usage, healthcare touch points

The customer journey has garnered the interest of firms wanting to strengthen their bottom-lines by improving the search, purchase, and post-purchase experiences of current and potential buyers (Neslin et al. 2006; Pucinelli et al. 2009). With the proliferation of digital channels and technologies, opportunities have greatly increased to shape these experiences through firm-managed touch points (Anderl, Schumann, and Kunz 2016; Bolton et al. 2014; Court et al. 2009). Astute businesses are designing and inserting touch points along the journey to direct consumers' choices, such as Amazon's recommendation algorithm to expedite buying and reordering tasks, and Kraft Foods' recipe management tool that automatically generates a shopping list connected to a grocery delivery service (Edelman and Singer 2015). Consistent with these interests, marketing scholarship has adopted a firm-centric view, seeking to understand how touch points influence pre-purchase and purchase decisions (Baxendale, Macdonald, and Wilson 2015; de Haan, Wiesel, and Pauwels 2016).

As the journey literature grows, several knowledge boundaries have surfaced. The first knowledge boundary is the dearth of insights on direct consumer experiences. Researchers have studied experiences indirectly through perceived value, service quality, switching costs, brand consideration, and customer value and satisfaction (Anderson, Fornell, and Mazvancheryl 2004; Baxendale et al. 2015). Yet the experiences themselves—feelings, thoughts, and actions while journeying—remain elusive, despite recognition that cognitive, affective, and physical states are core to the process (Arnould and Price 1993; Thompson, Locander, and Pollio 1989). One reason for limited understanding of experiences is that researchers are attempting to study the journey quantitatively, but have to yet to arrive at robust and validated measures (Brakus, Schmitt, and Zarantonello 2009; Klaus and Maklan 2012).

The second knowledge boundary centers on the post-purchase experiences. Because post-purchase extends "temporally from the purchase to the end of the customer's life" (Lemon and Verhoef 2016, 76), it constitutes the largest portion of the journey. Individuals in this phase of the journey interact with the product, service, or brand most extensively, and often make repeat purchase and loyalty decisions based on these experiences (Etkin and Sela 2016; Hamilton, Ratner, and Thompson 2011). Least understood is long-term post-purchase use, where experiences occur over many years. The typical window of study captures what precedes and occurs during buying but truncates the journey by overlooking what occurs after.

A third knowledge boundary is the context of consumption. The life circumstances of individuals are theorized to play a significant role in journeys, but relatively few contextual aspects have been empirically examined (Fornell et al. 2010; Kumar et al. 2014). This detachment of individuals from their living conditions—such as the neighborhoods they reside in, the family and friends they relate to, and the economic and cultural spheres they are a part of—may strip away critical nuances. Researchers have been urged to collect data *in situ* to avoid partial and fragmented understanding of journey experiences, and to move instead toward holistic insights of interactions between individuals and their day-to-day settings (Emrich and Verhoef 2015; Lemon and Verhoef 2016; Verhoef 2003).

To address the above gaps, we study long-term post-purchase usage in the context of daily life, with the broad aim of understanding more fully the nature of and influences on the journey. Specifically, we investigate the experiences of individuals attempting to properly consume medications for hypertension, and the ways in which life situations influence compliance efforts. Because hypertension is a chronic condition, it cannot be cured in the short run but must be managed over a lifetime. Consequently, compliance involves prolonged,

indefinite, and repeated consumption of medications as directed by physicians and other health authorities, and represents an extended and uncertain journey where post-purchase usage takes center stage. To better understand contextual intricacies, we investigate the compliance efforts of socio-economically disadvantaged individuals, namely lower income minorities. Because disadvantaged persons face more challenging life circumstances, they provide an opportunity to better understand the role of context in compliance (Ogedegbe et al. 2013; Sabaté 2003).

Our key finding is that the compliance journey is profoundly liminal in nature and shaped by context. By liminal, we mean that the consumption of medications vacillates from occasion to occasion between conforming to and disregarding instructions in part or whole. Compliance is not a stable state of proper medication taking as often assumed; rather it involves continuously negotiated movements toward and away from an imposed standard. Liminality is produced by the context individuals find themselves in, namely the life spheres of meso-structural conditions, micro-individual factors, and interpretive acts. Meso-structural conditions are aspects of the built as well as socio-economic environment; micro-individual factors are personal endowments and characteristics; and interpretive acts are practices individuals apply to make sense of illness and guide their medication usage. These spheres interact to encourage and inhibit compliance.

Our findings contribute a novel, integrated, and nuanced journey framework to the literature. Importantly, our work builds on two key studies. One is the conceptual work of Lemon and Verhoef (2016), who provide a process framework for the journey but call for models that are holistic and experience-focused to advance the literature. The other is Spanjol et al.'s (2015) investigation of medication compliance as a co-created service. The authors conclude context is critical to the nature of compliance and highlight the need to understand situational influences.

We extend these studies by illuminating the situated experiences of chronically ill individuals attempting to adhere to their medications over extended periods of time.

Our findings provide a more comprehensive and complex portrait of the journey by uncovering momentary behaviors shaped by intertwining circumstances, compared to the dominant model of the journey as a clear, simple, linear progression of consumption decisions detached from the day-to-day (Bolton et al. 2014; Lemon and Verhoef 2016). As discussed later, our framework suggests that the journey of compliance can be improved for consumers by accounting for liminality and context. Firms and healthcare partners can implement touch points to foster medication usage, and thereby improve the well-being of individuals and society as a whole. Hereafter, we present the conceptual background on compliance and journeys from the marketing and medical literatures, followed by our methodology and findings. We conclude with implications for marketing and healthcare theory, practice, and policy.

Conceptual Background

Chronic Illness and Medication Compliance

More than half of American adults are prescribed at least one drug for a chronic condition (Kantor, Rehm, Haas, Chan, and Giovannucci 2015). Annually in the United States, 125,000 deaths and upwards of $300 billion in hospital costs are attributed to individuals deviating from instructions, with noncompliance estimates ranging from 50% to 80% of patients (Gottleib 2017; Hausman 2004). Recognizing the dire consequences of noncompliance, including preventable disabilities and premature deaths (Ho et al. 2006; Schiff et al. 2003), medical researchers have studied the proper intake of drugs, also known as medication adherence. These efforts have produced a large body of work, which proposes improving compliance through methods such as electronic reminders (Vervloet et al. 2012) and motivational interviewing (Palacio et al. 2016).

Nevertheless, compliance has improved only modestly despite decades of work to develop interventions (Haynes et al. 2008; Kripalani, Yao, and Haynes 2007; Molloy and O'Carroll 2017).

The emphasis on interventions reflects medicine's prevailing institutional perspective. This perspective assumes physicians diagnose, dispense, and monitor treatments while patients follow through. Although recent movements toward patient-centered care strive to balance responsibilities between the two parties (Epstein and Street 2011), compliance is often framed as a problem to be controlled through physician-driven solutions (DiMatteo et al. 2002; Tallon, Chard, and Dieppe 2000). When noncompliance occurs, it is typically assumed that patients willfully ignore instructions of the medical authority (Clifford et al. 2008; DiMatteo et al. 2007, 521; Lowry et al. 2005). The underlying concept of a dependent layperson implementing the order of an authoritative expert remains largely unchanged (Sabaté 2003).

Because this institutional stance assumes medication taking is a simple task, usage experiences from the consumer perspective has received minimal attention. Direct experiences, including resisting orders, are largely unknown as reflected in a study conclusion reached thirty years ago that remains descriptive today: "We know that a non-compliant patient has not followed a clinical prescription, but we do not know what that patient has done instead" (Trostle 1988,1305). This lack of understanding has resulted in few conclusions about the determinants of noncompliance. Researchers are increasingly assessing the neglect of patient experiences, including thoughts, feelings, habits, actions, and preferences, as hampering progress (Pound et al. 2005; Vermeire et al. 2001).

Additionally, medication compliance has not been studied temporally. Medical research provides little detail on compliance over the life course of individuals or their diseases (Benner et

al. 2005; Sabate 2003). Studies usually examine medication-taking over six-month periods and in rare cases up to two years (Karve et al. 2009; Nieuwlaat et al. 2014). Even compliance fluctuations in individuals has garnered limited attention, with the exception of "white coat" reactions, where compliance increases just before scheduled visits to physicians or nurses (Burnier et al 2013). Therefore, experiences that unfold or alter over a long duration, as in extended post-purchase usage, have yet to be studied (Molloy and O'Carroll 2017).

Compliance is also assumed in medicine to be a simple dichotomous choice: either take the pills as told or not (Miller and DiMatteo 2013). However, the behavior may be more phenomenologically complex, since there are multiple choices to make, including whether, when, and under which conditions to consume (Bodde et al. 2013). Deviating from instructions on any aspect can mean noncompliance. For instance, ingesting a pill at the correct time but wrong dosage is noncompliance. Furthermore, contrary to the term, compliance is not a matter of passively accepting a directive. Patients possess considerable latitude in following or ignoring physician instructions. All told, while the compliance literature in medicine is extensive, it has yet to elucidate such complexities.

Health-Related Compliance from the Marketing Perspective

Marketing scholars are examining health-related compliance. Consistent with the broader research on consumer compliance, rational-cognitive explanations prevail. For example, Luce and Kahn (1999) determine that perceived vulnerability to a malady significantly influences the willingness to comply with subsequent preventative screening tests after receiving a previous false positive test result; and Seiders, Flynn, Berry, and Haws (2015) find consumer and provider efficacy enhance the intention to observe physician diet and exercise advice when the negative consequences of ignoring advice are emphasized. While these results underscore the impact of

rational beliefs on consumer decision-making in response to health expert instructions, the role of emotions, sensations, and other non-rational experiences is far less understood.

Like their counterparts in medicine, marketing researchers study health-related compliance indirectly and as a short-term phenomenon. Bowman, Heilman, and Seetharaman (2004) for example investigate several facilitators of arthritis, diabetes, and hyperlipidemia medication compliance, including salient mindfulness and advertising recall. Compliance is measured by prescription fills on an anticipated two-year schedule. Similarly, Wosinska (2005) analyze the impact of brand advertising on hyperlipidemia medication compliance as measured by prescription claims over four years. Yet filling or claiming a prescription is not the same as actually consuming the drug. Studies suggest that while 70% to 80% of prescriptions are filled, at best 50% are taken as specified (www.fda.gov). The timeframes used in marketing health-related compliance research, even when focused on chronic conditions, do not correspond with the lengthy duration of these illnesses.

A related stream in the marketing literature is consumers' co-creation activities in health services. Because health services are dependent on consumer participation for quality outcomes, much of the services' value is generated by the consumer in partnership with the provider. A provider may advise an individual on how to utilize a service, but compliance involves following instructions away from the provider's close supervision (Gronroos and Voima 2013; Turner, Hager, and Dellande 2015). To encourage this behavior a provider can mete out rewards and punishments; nonetheless, the individual exercises considerable discretion and control, contradicting the assumption of compliance as mere order taking (Dellande and Nyer 2013).

Critically, a handful of investigations has sought to identify the factors in and behaviors of health-related compliance from a co-creation perspective. Dellande, Gilly, and Graham (2004)

in a study at a weight loss clinic conclude that provider expertise and attitudinal homophily spur client role clarity and motivation to abide by diet and exercise recommendations. McColl-Kennedy et al. (2012) find five distinct co-creation practices of patients undergoing cancer therapies that vary by intensity of activities and interactions with providers and other resources. Most relevant, Spanjol et al. (2015) conceptualize chronic illness medication adherence as a co-produced service, i.e. a service whose value-in-use is created independently of the provider. That research team concludes adherence is a nested system of co-production behaviors circumscribed by behavioral cues and self-regulatory resources.

While presenting significant insights, the co-creation stream has not addressed the direct emotional, physical, and interpretive experiences of compliance—for instance how it feels to be sick and dependent on medications or what it means to have a family history of life-threatening illnesses. Furthermore, despite Spanjol et al. (2015) observation that co-created health-related compliance is context dependent, the daily life circumstances of individuals, including where, with whom and how they live have thus far not been studied. The same is generally true of individual characteristics. McColl-Kennedy et al. (2012) argues for more research on personal factors that affect health services co-creation.

Medication Compliance as a Consumer Journey

In the journey literature the consumer is theorized to move in a clear sequence from pre-purchase to purchase and finally post-purchase phases, as presented in a conceptual framework by Lemon and Verhoef (2016). Implicitly, this process framework presupposes that touch points can be inserted en route to stimulate buyer actions in favor of a firm's offerings. Marketers have likewise assumed that the journey is a linear phase-to-phase progression as reflected in the

popularity of tools such as journey mapping to identify triggers moving consumers toward purchase (www.hbr.org).

The process view offered by Lemon and Verhoef (2016, 85) is a conceptual starting point for exploring the journey. Yet the authors acknowledge that of the three phases, the least understood is the last due to the predominant interests in actions culminating in sales conversion. Little is known about post-purchase beyond its basic contents of usage, consumption, engagement, and requests. Medication compliance offers a valuable way of shedding light on this phase. Not only is compliance a long-term usage situation, but it is also need-based in that the product must be taken to avert early death or further disability. Extended and necessary usage has not been well researched in the journey literature compared to short-term, want-based forms of consumption.

For most chronically ill individuals, medications are taken daily, sometimes several times a day. Being confronted often with the decision of compliance makes it a repeated and continuous rather than episodic consumption choice. As such, compliance is likely subject to a host of situational factors, and promises potential insights on how such factors shape the journey as independent and connected forces. Lemon and Verhoef (2016) observe "a critical need for researchers to develop and test such an integrated conceptual model of customer experience and customer journey" (Lemon and Verhoef 2016, 85). Attending to chronic illness medication compliance promises such a model.

Finally, the journey literature has investigated mainstream or well-resourced consumers. Findings are assumed to apply as well to marginalized individuals. This assumption is questionable based on distinctions in compliance practices: African Americans are 80% to 330% less likely to take blood pressure medications than whites, and suffer from much higher rates of

premature death and life-altering disabilities (Lewis et al. 2010). Reasons for such disparities are not well understood, though contextual features such as inadequate income and distrust of healthcare professionals (Lewis et al. 2010), along with social isolation and stress from unstable living conditions have been raised as possibilities (Prime Access 2013). Consequently, the journey literature may be theoretically enriched by expanding the scope of study to the socio-economically disadvantaged, in the valuable tradition of base of the pyramid and transformative consumer research.

Study Background and Method

A Socio-Cultural Approach to Understanding the Consumer Journey

To address the three knowledge gaps in the journey literature—on direct consumer experiences, post-purchase usage, and life context—we conduct an empirical study of chronic illness medication compliance. We take a socio-cultural approach to understand the ways in which the life spheres of meso-structural conditions, micro-individual elements, and meaning-making practices shape medication usage experiences (McCracken 1986). To uncover these ways, we apply qualitative methods of depth interviewing and hermeneutical analysis (Thompson 2005). Because qualitative tools attend to personal meanings and events, they access experiences that are less rational and more sensed or symbolic in nature. Crucially, the methods enable linking personal meanings to larger cultural processes, placing these relationships within material settings (Arnould and Thompson 2005). Moving between levels helps us identify ways meso and micro factors jointly influence personal meaning making and consumption acts.

A socio-cultural lens permits rich insights by examining consumption as direct experiences. This perspective has been fruitfully applied by consumer researchers studying difficult health choices such as breast cancer therapies (Wong and King 2008), natural childbirth

pursuits (Thompson 2005), and infertility treatments (Fischer, Otnes, and Tuncay 2007). The socio-cultural approach has been valuable too for studying marginalized consumption, such as by African Americans living in a racially segregated urban center (Crockett and Wallendorf 2004), homeless women residing in a shelter (Hill 1991), and the working poor occupying trailer homes (Saatcioglu and Ozanne 2013). These works reveal how consumption culminates from and through the shifting intersections of social, institutional, historic, and cultural forces as well as individual circumstances and personal understandings.

Data Collection and Analysis

Given the multi-disciplinary nature of the topic, we assembled a team of researchers from marketing, medicine, public health, and pharmacy. After institutional review board approval, we recruited 29 informants at a large urban minority-serving university medical center. The two research team leaders (one in marketing and the other in medicine) conducted the interviews. The marketing researcher led half the interviews, and the medical researcher led the other half. The pairing of marketing and medical researchers helped ensure that the interviews covered the terrain of compliance, and drew on respective expertise about consumption, medications, patient treatment, and institutional systems. We used a semi-structured interview guide on hypertension history and medication efforts. Informants were encouraged to share their chronic illness experiences and compliance endeavors over time. On average informants have attempted compliance for 14 years, some for over 40 years. Interviews ranged from 60 to 90 minutes. The transcribed interview data totaled over 900 double-spaced pages.

Consistent with our multi-disciplinary approach, we began the analysis with members of the research team individually reviewing the transcripts and taking notes on salient themes. Each member shared quotes and observations with the team to propose initial conceptualizations about

the compliance journey. The conceptualizations were compared vis-à-vis the transcripts for alternative interpretations and insights, and then challenged and reformulated in extensive team discussions. The aim was generating new perspectives on the data from distinct disciplinary views, and much was vigorously debated about theory, empirical results, and implications for marketing and health care. To aid the discussions, the team created maps and figures, and posted notes on wall sheets for visual analysis.

Thereafter two members of the research team applied a hermeneutical approach to analyze the transcripts further as inspired by the team conceptualizations (Thompson 1997). The hermeneutical approach differs from text analysis methods that fragment and code texts into discrete units; instead, patterns and themes are discerned from long passages, assembling discourses organized around informants' consequential illness and therapeutic experiences, circumstances, and meanings (Bury 2001, 282; Riessman 1990). Following the principle of hermeneutic circles, these thematic insights were extensively discussed until "an ever more integrated and comprehensive account of the specific elements, as well as the text as a whole" emerged (Arnold and Fischer 1994, 63).

The procedure involved two researchers carrying out an intratextual analysis to fathom each informant's medication consumption, followed by an intertextual, or part-to-whole, analysis to surface emergent concepts. The researchers moved iteratively back and forth between the data and relevant literature across a spectrum of disciplines to identify a "logical chain of evidence and arrive at a coherent conceptual framework" (Adkins and Ozanne 2005, 94). Throughout this process, insights were provisionally proposed, questioned, and refined, returning repeatedly to the primary data to ensure the veracity of findings (Thompson and Troester 2002). As the framework evolved, it was discussed with the entire research team in monthly meetings held for

two years following completion of data collection. Again, this was done to ensure that the analysis yielded robust theoretical insights from an interdisciplinary view.

Informants

Given our interest in the socio-economically disadvantaged, we chose a medical center that serves a high proportion of indigent persons from inner-city neighborhoods. Our informants were 11 male and 18 female African Americans ages 39 to 77. Ninety percent of our respondents were unemployed and received government assistance. Most lived on fixed incomes with little to no prospect of upward mobility. The remaining informants worked full time, but often held more than one job in the retail and service sectors, qualifying the informants as working poor (Ehrenreich 2010). The typical annual household income was less than $20,000, which is below the federal poverty guideline of $24,300 (ASPE 2016). Informants' health insurance mirrored this status: 26 out of 29 individuals were on Medicaid. In common with those in poverty, many informants suffered from depression, addiction, and other chronic conditions besides hypertension. These co-morbidities led to multiple treatments and medications: Informants on average were prescribed seven, and some as many as 20, distinct medications a day. Further, 24 of 29 informants had less than a college degree, and nine had less than a high school education. These characteristics are captured in Table 1 (pseudonyms used).

[Table 1 about here]

Findings

We develop a socio-cultural account of consumers' post-purchase compliance experiences as summarized by our theoretical framework in Figure 1. In particular, we find that compliance is a liminal, not an anchored, state. Consumers continuously oscillate between compliance and noncompliance by making tentative movements toward and away from the

therapeutic standard, as shown by the two ellipses and opposing arrows in the center of the figure. These contradictory movements can occur place moment to moment: on one occasion a medication is taken as directed and on the very next it is not, such as by consuming half a dose or skipping it altogether. The vacillations relative to the ideal occur within periods of hours, days, weeks, or longer. Therefore, we introduce a new conceptualization into the journey literature of liminal consumption experiences, drawing from the anthropological concept of liminality as "betwixt-and-between the normal, day-to-day cultural and social states…" (Turner 1979, 94).

[Figure 1 about here]

We note that liminality is partially tied to the nature of hypertension. An afflicted person does feel well or normal at times. Yet the lack of symptoms does not mean cure or abeyance of the disease. Hypertension is called the 'silent killer' precisely because its potentially deadly presence is not always felt or acknowledged. We describe how some informants, lulled into thinking they are fine, take a 'medication holiday' only to experience a life-threatening flareup followed by resumption of their drug regimen. In our study, we focus on compliance as a liminal state rooted in contextual life spheres of the disadvantaged, as distinct from prior works in medicine, sociology, and autobiography on the liminality of illness itself (Bury 2001; Charmaz 1997; Sontag 2001).

Furthermore, we find that liminality results from and is co-constituted by three contextual life spheres: meso-structural conditions, micro-individual factors, and interpretive acts. The life spheres are represented in the figure by the large rectangles on the perimeter, while the specific conditions, factors, and acts are indicated by the circles within the rectangles. Per the arrows attached to rectangles, the meso-structural conditions of the built and socio-economic environment, micro-individual factors of personal endowments and characteristics, and

interpretive acts of sense-making practices impact compliance in distinct ways—some helpful, some hindering, and some both. These conflicting impacts, which appear as + and – signs in Figure 1, lead to liminality. Furthermore, the three life spheres interact with one another, specifically meso-structural and micro-individual onto interpretive elements as indicated by the curved arrows. Context thus reveals a complex nexus of influences, in the absence of which compliance appears to be a simple matter of choice, opportunity, or motivation.

In the detailed findings that follow, we first explicate the life spheres of meso-structural, micro-individual, and interpretive acts, respectively. We do so in order to present the circumstances that shape compliance and produce liminality. In addition, because marketing interest in the journey centers on improving customer experiences, we highlight life sphere touch points that help individuals take their medications for greater well-being. Thereafter, we present compliance's liminality as a function of intertwining meso, micro, and interpretive influences.

Meso-Structural Conditions

As observed by research on low income and minority consumers, meso-structural conditions play a pronounced role in daily consumption. Studies point to how taken-for-granted living conditions such as safe neighborhoods and affordable groceries in the meso-structural, or built and socio-economic, environment are often absent in communities where unemployment and persons of color are concentrated. Residents abstain, reduce, and substitute basic goods and services due to insufficiencies in their communities (Crockett and Wallendorf 2004; Hill 1991; Lee, Ozanne, and Hill 1999). Similarly, we find that three conditions of the meso-structural life sphere shape compliance behaviors: economic privation, socio-spatial ecology, and medical marginalism.

Economic Privation and Medication Under-Consumption. In the U.S. 43 million

individuals live in poverty, a number that grew by 11% through a prolonged economic recession. They are disproportionately black or Hispanic, living in urban centers, and short of full-time work (Proctor, Semega, and Kollar 2015). Most of our informants earn less than $20,000 a year. This situation constitutes economic privation or inadequate income for necessities, one of which is medications. Pharmaceutical firms have raised the price of prescription drugs dramatically in recent years. In response, governments have restructured Medicaid programs that serve the poor through "higher copayments, reduced reimbursement levels, limits on numbers of prescriptions, and restricted formularies" (Kennedy, Coyne, and Schar 2004, 608). Caught between the spiral of escalating drug prices and limited incomes, our informants often choose to under-consume, whether by skipping, splitting, or swapping medications.

Frank, a 64-year old retired factory worker, was diagnosed with hypertension following a heart attack. Uninsured, he postpones filling prescriptions until he can no longer tolerate being "out of breath," a common sign of hypertension. He explains that his brother-in-law comes to the rescue by sharing his pills: "Like I said, sometimes I couldn't get my meds and he [brother-in-law] had the 20 mg pill and said, 'Frank, start taking this.' When the doctors looked at my blood, they thought the 10 mg enalapril they gave helped bring my pressure down. They said, 'Are you still on that?' I said, 'No, I'm taking 20. I'm taking somebody else's.'" Frank in turn shares his diabetes drug with his brother in-law, who cannot afford to see a doctor. For both men, pill swapping leads to medication under-consumption, as well as self-prescription in that they, not physicians, determine courses of treatment.

Notwithstanding the dangerous nature of these practices, informants engage in pill exchanges to work around the lack of access to affordable drugs through private insurance or public assistance programs. The normalization of pill swapping is reflected in Constance's plans

to manage price hikes and reduction of Medicaid-provided drugs: “Some of the programs that support me won’t be there soon. So I can’t afford to take some meds. It’s as simple as that. I’m on disability and I get one check a month and that is it. So I’d either do without my meds or just ask my friends [to borrow pills].”

Economic privation is exacerbated by the trial-and-error nature of treating chronic illnesses. Unlike conditions remedied with standard courses, chronic illnesses require physician experimentation with different medications and dosages due to disease complexity. Yet frequent changes in prescriptions cause financially struggling patients to choose between following or ignoring doctors’ orders, as we see in Freda’s comments: “You know how they [doctors] say, ‘Oh, we don’t want you to take that anymore ‘cause that is not working for you,’ so then you’ll have to buy new medicine. Well, I can’t just throw the old one away because I don’t have that kind of money! I just paid $100 for that bottle [with frustration]! I’d keep taking the old one till it ran out.”

In attempting to save money, some informants keep physicians in the dark about what medications they are or are not taking. Doctors then adjust medications when they see little to no health improvement. Unfortunately, this action furthers misdiagnosis, causing patients to quit their therapies prematurely (Briesacher, Gurwitz, and Soumerai 2007). Nonetheless, doctors can act as critical touch points facilitating compliance if informed about their patients’ financial difficulties. For example, one informant mentions that her doctor keeps a closet full of free samples to share with her and other patients in need. In this case, the doctor partners with her to co-create compliance (Dellande, Gilly, and Graham 2004).

Socio-Spatial Ecology of Direct and Indirect Harm. Individuals live in communities as well as families, which are differentiated materially and socially (Sampson 2003). Differentiation is

growing as poor minorities concentrate in urban cores physically isolated from affluent majority populations. The results are "ecologies of inequality" (Massey 2009, 26), where certain neighborhoods have fewer services and goods than others, but more crime, violence, and unemployment (Sampson 2003; Talukdar 2008). Social norms materialize as conventions to fit in and survive, such as displaying a threatening demeanor, selling and using illicit drugs, and raising children out of wedlock (Anderson 1999; Sharkey 2013; Wilson 1987). We refer to these public and private spaces and their material and social features as the socio-spatial ecology, which shapes compliance through direct and indirect harm.

The most direct harm is elevated stress in the home. Ruth, a 48-year old recovering drug addict, reveals that she has had 17 pregnancies by different men and is raising six stepchildren. Without a steady job, she is living on public aid. Reflecting back, Ruth believes she has suffered from hypertension since a young girl, but reasons that a drug habit and early motherhood distracted her from attending to the condition. She admits forgetting to take her pills because "during daytime, a lot of things goes on, you know, my oldest daughter just got out of the penitentiary. She [*sic*] on drugs, and I'm trying to help her. I have five grandkids that are in the system [as wards of the state] that I'm trying to track down [in tears]." Similarly, Juanita describes how she neglected her medications and experienced several strokes, not only by stopping her treatment but also after taking in five nieces and nephews abandoned by her drug-addicted siblings.

Less direct but no less harmful is living in a community where social inclusion comes at the price of personal health. Thurgood explains: "See, I stay in a senior citizens' building so it's like maybe two hundred apartments; so all the peeps in the building come to be your family, they're your family. Thing is there's a lot of drug activity going on, drinking and dancing… so a

lot of times you have to stay away from them in order to do good cause…they'll make you stop taking your meds." Thurgood acknowledges that he regularly indulges in drug and alcohol excesses with neighbors who have become family to him. He is so hung over at times that he cannot recall taking his pills.

Prior research indicates that, though individuals like Thurgood are aware that harmful activities undermine well-being, they engage in them in spite of warnings from medical authorities. Temporal focus, emotional state, life stressors, mindlessness, desire for social interaction, neurophysiological dependencies, and the capacity for delayed gratification are among explanations for harmful consumption (Grover et al. 2011; Kalivas and Volkow 2005; Salerno et al. 2014). For example, Winterich and Haws (2011) conclude that a future positive focus such as hope lowers preferences for unhealthy choices, whereas a past or present emotional state such as pride or happiness elevates those same preferences. Relatedly, Fedorikhin and Patrick (2010) determine that when positive mood is accompanied by elevated arousal the resulting cognitive depletion lowers the resistance to unhealthy temptations even when long-term health goals are activated. Healthy pursuits can paradoxically encourage risky behaviors in a dynamic known as the boomerang effect: individuals feel they have a 'get out of jail free card' when taking healthy measures, which increases harmful behaviors by reducing associated risk perceptions (Bolton, Cohen, and Bloom 2006). However, contextual causes of harmful consumption have not been well investigated in marketing, though scholars have pointed out the need to understand the impacts of economic, social, and material conditions (Hirschman 1992; Rindfleisch, Burroughs, and Denton 1997). Therefore, our finding of socio-spatial ecology and its direct negative effects on medication routines provides new insights.

Socio-spatial ecology also indirectly hinders compliance through a spatial mismatch between jobs on the one hand and transportation and housing on the other (Ehrenreich 2010). Because poor communities offer few jobs, residents take available ones far from where they live. However, doing so leads to significant medication challenges as exemplified by Shondra: "I have to get up at 5:00 to get to the office. Then I'd be on the field, selling insurance till 2:00. Then I go home, fix dinner for the family, and go to work again. In my second job, I work at a deli counter in Costco out in [a far suburb] until 9:00 in the evening. I get home pretty late 'cause I got a long commute. There'd be days like 'I don't have time for breakfast.' So then I'm not taking my med, I'll just skip the day…" Shondra took the Costco job after an exhaustive search for work in her neighborhood proved unfruitful. An ever-changing work schedule as well as the city's limited mass transit make it difficult for her to prioritize and routinize medication taking.

Shondra's comments indicate that trivial yet consequential decisions made every day, such as commuting to the suburbs and working a late shift, derail or support compliance. The constraining realities of Shondra's life suggests that her compliance might increase if touch points were contextualized to her socio-spatial ecology. With growing recognition that situational differences among consumers are sizeable (Homburg et al. 2017), contextualization can improve such post-purchase experiences as medication compliance.

Medical Marginalism's Subpar, Denied and Non-consultative Care. The American medical system relies on private insurance to cover healthcare costs for those who can afford it, and on government-subsidized or -provided programs for those who cannot. While the poor rely on these public services, limited access and low-quality care are major issues. Over the past four decades the number of urban hospitals has dropped by 46%, while new hospitals have opened in wealthier suburbs (Thomas 2014). This disparity in access is paralleled by differences in service

quality: 60% of the poor and 40% of blacks receive lower quality healthcare than higher income persons and whites (U.S. Department of Health and Human Services 2015).

Our data point to such inequities in the form of medical marginalism, which we define as the systemic exclusion from quality medical services by virtue of lower socio-economic status. An infamous example is the Tuskegee Syphilis Study (1932-1972), through which the U.S. Department of Public Health denied treatment to black sharecroppers to document the disease's 'natural' progression (Gamble 1997). Although that egregious social experiment ended, medical marginalism continues in the form of subpar, denied, or non-consultative care that impairs compliance.

Ruth's experience reflects medical marginalism in her resorting to a storefront clinic, where she was misdiagnosed. Similar to mobile clinics (Lee et al. 1999), storefront clinics offer sporadic health services, but are not equipped to treat complex or chronic conditions. They are sometimes the only source of nearby affordable medical services for persons of limited means. A storefront doctor overlooked Ruth's hypertension eleven years ago: "I was going to, it was like a storefront doctor, you know? So he'd do only certain things… He told me that it was mandatory for me to get my tubes tied because I was having babies too quick back to back. Some of my kids, it's like six months apart." The doctor, who lacked her medical history and could "do only certain things," decided that serial pregnancies were the culprit and recommended a tubal ligation. Ruth later learned she had hypertension and risked death or disability in the intervening years.

Kendrick was correctly diagnosed with hypertension, but only received treatment after relentlessly pursuing it: "It was like every time I go and see my doctor, he constantly said, 'Your pressure's high.' So I get frustrated. I'm like, if my pressure is high, why am I not being

medicated for high blood pressure? I'm like 'I'm so sick and tired of you and the nurse telling me I've got high blood pressure. You've already taken notes. Are you not seeing these?!'" Kendrick shares that he had been repeatedly evaluated by a changing roster of physicians at various clinics for the indigent. Although informed of his dangerously high hypertension, no doctor prescribed any treatment. Only when he was able to shift to a research hospital did he receive life-saving medications. In effect, Kendrick was denied care.

Medical marginalism operates in another pernicious fashion: inadequate medical consultations. While communications between physicians and patients increase compliance (Hausman 2004), consultations can lack crucial information that leave patients with an "illusion of competence, or a false belief that they have an adequate base for making a decision about treatment" (Makoul, Arnston, and Schofield 1995,1250). Such is the case with Joakima, who nearly died after deciding to cut back her medication: "The doctor never told me that I had clogged arteries and he wasn't explaining nothing to me about congestive heart failure. So, that's why I felt like I didn't need to be on the medication. So I decided to wean myself. 'Cause the first time when they put me on meds, I thought they were just playing. I say there ain't nothing wrong with me. I kind of eased off by like two or three weeks and then I end up in the hospital with chest pain." Joakima's quote reflects how she was left in the dark about the severity of her illness and the exacting adherence required. Her comment about doctors "just playing" with her reflects a personal disbelief and denial in the wake of an unpleasant diagnosis (Tian et al. 2014).

Joakima's experience exemplifies affectively charged, intimate, extended service encounters (Price, Arnould, and Tierney 1995), where doctors and nurses act as critical touch points by providing or denying emotional labor to patients. Medical encounters such as Joakima's produce distressed feelings of vulnerability, isolation, and fear (McColl-Kennedy et

al. 2017). Left unaddressed, distress can worsen hypertension (Dean and Street 2014). For Joakima, the absence of a positive touch point from doctors providing her full information during consultations caused her to "ease off" of her life-sustaining drugs.

Micro-Individual Factors

Research on compliance recognizes the importance of micro-individual factors, or personal endowments and characteristics, in following instructions or recommendations. Among factors studied are demographic traits such as age and gender, as well as behavioral dispositions such as self-control and -regulation (Dellande et al. 2004; Fennis et al. 2009; Kronrod et al. 2012). Our study reveals that micro-individual factors beyond demographics and behavioral dispositions are influential, specifically relational networks, cultural capital, and maturity-based wisdom. Though this life sphere on the whole spurs compliance, varying levels of networks, capital, and wisdom lead to distinctions in compliance.

Relational Networks: Being Helped and Helping Others. Previous studies have explored the role of provider relations, including how provider expertise and homophily further compliance in weight loss and debt management programs (Dellande et al. 2004). These studies highlight the benefits of supportive or affiliative ties between providers and consumers (Arnould and Price 1993). Our study extends findings beyond the provider-customer relationship by identifying the impact of family and friends in compliance efforts. This impact occurs in two ways: being helped by others and helping others. Because chronic illness medication taking requires repeated actions over indefinite periods, unlike the confined requirements of, say, a debt management program, informants draw on wider personal networks to persevere with regimens.

We find that informants struggling to take medications reported feeling disconnected from family and friends, whereas those making gains displayed visible excitement about these

relationships. Gloria recounts the morale boost she received from friends after becoming wheelchair bound and depressed: “I just got so depressed that I didn’t take them [meds]. I was like, why take them? But luckily, I have friends who always come by. They haven’t pushed me aside when I became stuck in a wheelchair. They come to eat with me and ask me if I take my pills, so that helps me go on and take care of myself.” Likewise, Sheila, who suffers from amnesia, affectionately talks about her five-year-old granddaughter’s tireless reminders to take her pills: “She is like a clock. If the medicine is still in there, she’ll bring the pills and some water, and watch me take them.”

Strikingly, strong personal networks can build even under strained circumstances. Bobbie’s story is marked by an extensive period of self-neglect followed by conscious efforts to build a supportive network. Bobbie was diagnosed with hypertension thirty-one years ago while in a violent marriage. Her husband repeatedly threatened to kill her. The continual stress aggravated her illness, but she ignored her prescription and suffered a stroke. Much later, tired of her husband’s threats and her own suicidal thoughts, Bobbie mustered the courage to end her marriage and take control of her health. She has since surrounded herself with sympathetic friends and set up a medication reminder system: “I love me now [after leaving husband]. I’ve got my friends, we check on and help each other out. I’m on the support group with my girlfriend. We have 9 o’clock pill time.”

Studying cancer patients, McColl-Kennedy et. al. (2012) determined that those seeking the most value from medical treatments actively partner with others and experience higher quality of life outcomes. We also find that a circle of support encourages informants to move toward compliance. These relational networks can function as positive touch points, such as when friends or family organize pillboxes or schedule doctor appointments. It is critical that

social support be relatively free of conflict and well intentioned (Warner et al. 2013). Healthcare providers can also be touch points, particularly for those with weak social ties like Thurgood, who confesses he takes his medications because he enjoys the nurse who visits him. Nurses are often in a position to assist with compliance issues since patients share more information with them than physicians (Lip and Beevers 1997).

Along with practical and emotional help, relational networks spur compliance efforts by providing opportunities to model good behaviors for others. David explains: "Yeah, I'm the preacher of the family; I show old pictures to remind my brothers how I used to be when I ignored my meds and ended up having a heart attack. I think that is why my younger brother got his health under control right away…With my kids, it's great to be a good role model for them. Before I lost the weight, they would look at me and say 'Daddy, are you taking care of yourself?' Now, they're like 'Daddy, I'm so proud of you.' So I motivate them and they motivate me." These narratives underscore the importance of social accountability, mirroring the curative power of support groups such as Weight Watchers (Moisio and Beruchashvili 2010).

Microdynamics of Cultural Capital and Maturity-Based Wisdom. Consumer compliance is largely understood as a function of cognitive-behavioral capacities and processes, especially self-regulatory resources and depletion. To the degree a consumer's ability to self-regulate is weakened, reliance on compliance-promoting heuristics increases (Fennis et al. 2009; Janssen et al. 2008). Our findings further these insights by observing that the individual resources and behaviors that matter are knowledge-, skills-, credential-, and social-related, and not exclusively cognitive-behavioral in nature. Specifically, we uncover how cultural capital and maturity-based wisdom in the micro-individual life sphere positively influence compliance.

Cultural capital refers to knowledge, skills, education, and other social assets that symbolize cultural competence (Bourdieu 1984; Holt 1998). We find evidence that cultural capital fosters compliance efforts. Marcella, who has a college degree, managed to bring her blood pressure down by teaching herself about this condition. When asked how she knows that hypertension requires medication vigilance, she replies, "Research. I do my research. WebMD is my best friend." She confesses she "re-learned" what to do in the face of stress by reading materials and buying DVDs on praying, exercising, and healthy eating. Her actions reflect a cultural capital enabling her to adhere to treatment plans. Marcella presents a contrast to Thurngood and other informants who cannot readily access formal health information.

Our data point to cultural capital not only propelling compliance behaviors, but also influencing the microdynamics of physician relationships. Sheila, who spent a year in college and worked as a nursing assistant, prides herself on being able to draw her doctors' attention: "The doctors were all lined up [after her heart attack] and I asked all kinds of questions. They all answered me, you know, 'cause they know that I've been to nursing school. Told them that I got these tall books at home and I study them just like I study the Bible. I felt like a star talking to them…." By being informed about her condition, Sheila minimizes the cultural distance between herself and her physicians. Research suggests that doctors positively respond to signs of higher cultural capital by sharing resources and including patients in treatment decisions (Anspach 1993). These positive responses, in turn, empower patients to be more in charge of their health and diligent about medications.

However, Freda illustrates how microdynamics with physicians can be very different: "…some of the meds make me very nauseated, or I'm just so incoherent and so out of it that I don't even know what's going on. And because the doctors think they gave you the medicine,

then they think the problem must be with you. They're like 'Well, you can't be taking the medicine.' I told a doctor that I'd punch her in the face if she talked to me like that again. I said, 'Well, maybe it's not the right medicine. It's not that I'm not taking it. Maybe you just haven't found the right combination yet. You're here to help me! I don't have to lie to you.'"

The doctor's accusation of noncompliance angered Freda, prompting her to challenge the unfolding symbolic violence (Bourdieu 1984). Symbolic violence occurs when persons are injured in a system of unjust social hierarchy. Lower cultural capital makes individuals more vulnerable to acts of symbolic violence from medical authorities (Lee et al. 1999). Freda's response can be understood in relation to medical marginalism and its historic traces. Collective memory of the Tuskegee experiment continues to inform the black community's perceptions of maltreatment by, and deep distrust of, medical authorities (Gamble 1997).

Following informants' personal histories of hypertension, we find that even those with higher cultural capital need to reach a level of mental maturity before mobilizing toward self-care and medication taking. Based on Ardelt (2000), we term this maturity-based wisdom. Distinct from physiological aging that diminishes capabilities, maturity-based wisdom reflects greater cognitive, reflective, and affective abilities developed over time. Consistent with recent research on aging (van Auken, Barry, and Bagozzi 2006; Barnhart and Peñaloza 2013), we find that maturing mentally, such as by observing the detrimental effects of chronic illness, taps into reserves of reflexive knowledge to establish compliance practices.

David and Wilona provide illustrations. Earlier in life, David, a college graduate, and Wilona, a high school dropout, routinely abstained from medications despite both having been diagnosed with hypertension. Their trajectories diverged as they reached middle age. Wilona continued to abuse drugs and ignore her condition, whereas David started exercising and taking

his medications, prompted by wisdom following a near-fatal heart attack. Thus, higher cultural capital does not automatically translate into better self-care skills; rather, consumers need to reach a mature mental state before applying cultural capital (e.g., David discussing weight loss options with a physician) toward proper medication consumption.

Interpretive Acts

The marketing literature elaborates the centrality of cognition in compliance (Brannon and Brock 2001; Liu and Guan 2014). This emphasis is rooted in the perspective that following instructions or conceding to a request is preceded by mental actions. While our findings grant a role to cognitions, we identify less rational and more intuitive forms, as well as aspects of emotions, memory, culture, and embodiment incorporated into what we call interpretive acts. Representing another set of life sphere influences, interpretive acts are practices informants use to make sense of illness and guide medication actions. The acts draw upon not only conscious beliefs, but also subconscious preferences, emotional states, physiological indications, recollections, and cultural frames. Through them, informants construct and contest what it means to have a debilitating chronic condition, and implement diet, exercise, and drug routines. More specifically, we identify from the data three interpretive acts—body reading, retro- and pro-specting, and habitus negotiating—that consumers apply to pursue compliance.

Critically, interpretive acts are deeply informed by the dialogical relations with such meso-level forces as medical marginalism and micro-level forces of cultural capital. In other words, meso-structural and micro-individual factors interact with interpretive acts and together these impacts shape compliance through a complex interplay among life spheres.

Body Reading. We define body reading as the monitoring of physical sensations for signs of ill- or well-being. It is a way of getting in touch with one's body by recognizing the

presence of hypertension through aches, swelling, dizziness, breathing difficulties, and other symptoms. By giving primacy to the sensations of inhabiting a diseased body, rather than the biophysical pronouncements of physicians, body reading helps informants translate the disease into their own terms. Body reading is applied in two ways, as a somatic gauge and an accomplice to strategic cheating.

The Body as Somatic Gauge. Unlike diseases addressed by a short-term curative under physician control, chronic illnesses require long-term, sacrificial efforts by the patient to manage symptoms far from the physician's gaze (Charmaz 1997). This status of fairly autonomous self-care encourages individuals to use their bodies as an at-hand somatic gauge to direct medication consumption, as illustrated by Joakima's quote: "I can tell my pressure is up 'cause I start to get a headache. My ankles and feet start swelling. I try to stay calm, avoid salt for a few days, and I might take an extra pill." Paradoxically, body reading can be both empowering and harmful, reflecting connections between meso conditions and micro factors, specifically economic privation and low cultural capital. Unlike well-educated, middle-income consumers (Thompson 2005; Wong and King 2008), most of our informants do not learn about treatments through paid experts or published sources. They rely instead on their bodies as often the only available information source. Reading physical cues provides insights on underlying physical states and possible actions, unhindered by access and literacy walls.

Kevin's earlier account of how he overcame such barriers presents a good example. After interpreting his frequent headaches as indications of high blood pressure, Kevin pushed physicians to dispense anti-hypertensive drugs. Yet, tracing Kevin's example further, we see how this practice is detrimental when low cultural capital individuals misinterpret the absence of symptoms as a license to forego medications: "I was taking it [medication] regularly. Then after

a while, I got lax on it.…I felt like I don't need it anymore. I feel good. Then when my hands start swelling and my head start to hurt, I say 'Ohh, man.'" Kevin's comments show that he interprets the absence of headaches and hand-swelling as being healed. Consequently, he stops his regimen, despite the incurable nature of the disease.

The Body as Accomplice to Strategic Cheating. Meso-structural conditions such as poor socio-spatial ecology along with micro-individual factors such as absent relational networks induce stress in the lives of our informants. To escape, some informants engage in risky behaviors, including alcohol and drug binging. Body reading functions as an accomplice to these escapes, during which informants are unfaithful to their therapeutic regimens. In other words, to navigate the competing demands of their chronic illnesses and lifestyle preferences, some informants engage in strategic cheating by intentionally departing from medical advice.

For example, Yolanda seeks consolation in alcohol to face personal traumas. At the time of data collection, she was mourning her daughter's death while caring for her newly orphaned three-year-old grandson. Yolanda begins the interview in tears, describing the draining custody battle with the child's father. To handle the stress, she applies an elaborate body reading procedure that allows her to drink without risking a hypertension-induced stroke. She takes her pills until she has "enough in the system," at which point she stops for several days while drinking. She later resumes her drug regimen but multi-doses to compensate for the missed days, especially right before she has to appear in court or see her doctor. Yolanda explains her reasoning: "I know how I feel so I make sure I have enough in my system before I go to court, cause I don't want to pass out in the court…And I do the same before and on the day of the doctor visit because I don't want the doctor to give me something stronger than what I have. That is my logic."

Frank suffers from epilepsy and diabetes in addition to high blood pressure. Knowing that he can die or suffer a stroke at any moment, Frank sees no reason to deny himself "having a good time" with friends. However, to prevent a dire outcome, he has developed a method of body reading to avoid a fatal alcohol and medication interaction: "So, I see if I have enough [meds] in my system, and depending on, I pick two or three days every month to drink…I look at the clock, take my drink, awake, and I'd give it [alcohol] a long time to pass in my system before I take my medicine."

The underlying logic of Yolanda and Frank's strategic cheating is a mechanical view of the body. As though the body were a car that runs smoothly on a full tank of gas, informants observe a period of compliance to 'fill up' on medications. Temporarily suspending compliance, they assume the body will continue to function well since the tank has gas. By not taking medications during this time, they avoid toxicities with other substances. Our data shows the importance of body reading as a self-care tool, and how it can be misused by consumers seeking a respite from stressors. The reliance on body reading suggests its potential as a touch point, perhaps by training consumers on its appropriate uses as well as limits.

Retro- and Pro-specting. Compared to body reading, which focuses on current experiences with illness and compliance efforts, retro- and pro-specting center on past and future experiences, respectively. Retro- and pro-specting present images that propel action toward compliance by showing the consequences of adhering to or averting medication consumption. In this regard, the practices reflect intuitive, informal, and not always conscious knowledge.

Retro-specting through Past Cautionary Tales of Others. Retro-specting is critically reflecting on and drawing parallels between personal conditions and the illnesses of family, friends, and the black community at large, i.e. learning from the cautionary tales of others.

Sometimes a mental timeline is developed for the onset and progression of a disease to direct self-diagnosis. One informant notes his siblings had headaches starting in their forties and were diagnosed with hypertension. So when he began having headaches at about the same age, he suspected hypertension and actively sought treatment. Drawing lessons from others allows informants to anticipate a disease and predict its course with or without treatment. In this way retro-specting motivates medication usage by depicting the fate that awaits if a therapy is ignored. Consider Janice, who recalls with great distress her sister's stubborn refusal to take a prescription and the resulting amputation: "Yeah. I've seen a lot of people who have their legs and things cut off because they don't take their medicine properly, and I'm trying not to go down that road. I take my medicine." Janice's diligence is evident in her careful scheduling of refills: "When I see my bottles go down low, I know it's time to call for refills. I never let them get down to five pills."

Other examples of retro-specting appear in the data. Juanita shares how she thought she was having a stroke after skipping her meds one day. The stroke experience shook her deeply, and evoked painful memories of how her mother, following a heart attack, lost all capacity to care for herself and died alone in a nursing home: "I don't want to be like my mama, so I got myself a pillbox and an alarm clock right away."

Retro-specting also finds individuals drawing on communal memories to guide their journeys. Melvin has grown up listening to stories of afflicted individuals in the community: "A couple of people I knew from my neighborhood had blood pressure related issues. Walking strokes, you know, that's what they're called, walking with blood pressure at 200. I kept hearing this and I decide that's not going to be me. I need to get my blood pressure under control." Hypertension is all too familiar in the black community, where its incidence is 30% to 47%

greater and mortality rate 300% higher than among whites (Flack et al. 2010). Given the socio-spatial ecology that elevates awareness of hypertension and its victims, along with relational networks that reinforce this awareness, informants find meaning in these stories. Retro-specting permits reframing witnessed tragedies into powerful moments of learning by telescoping the focus from others to self. In this regard, retro-specting offers a touch point to promote compliance by highlighting cautionary tales.

Pro-specting through Future Visions of a Better Self. In lieu of learning from the illness experiences of others, pro-specting allows informants to turn to themselves, namely to reflect on and form a future vision of a better self. Dwight, a single parent of two young children, shares a stark scenario that plays out in his mind: "I just had to think. Do I want to be there for them [his children] or do I want to drop dead in their face while trying to play with them? That's what I think every time I take my pills… I started smoking and using drugs when I was 13 so we're talking about 30 years of that stuff. But now that I'm settled down with my children and I'm a minister, I've got things to do. So I have to take my medicine…'cause I want to be around to see them off to school and eventually graduate." Dwight's vision motivates him toward compliance.

Marcella also reflexively imagines a healthier future for herself and her family, encouraging her to follow doctors' orders. Marcella weighed over 300 pounds when she was diagnosed with hypertension and diabetes. She shares how that all changed: "…one day, I was watching TV and all the fat came down [pointing to her neck and chin]. 'Oh my God, I can't see the screen, oh, I can't even breathe.' It hit me then that I can't go on like this. I thought about my girls, and I was thinking of myself getting heavier and becoming bed-bound. How do I put a roof over my kids' head and food in their mouth if I can't work?' So I got up the next morning and I take my pills. I bought me Richard Simmons' 'Sweating to the Oldies', a videotape. I had cans of

soup for dumbbells. I worked out like that for 18 months. I show my friends the old pics. I'm like, 'Who is that big woman with size 38 waist?' and we laugh."

Pro-specting is supported by the recent research demonstrating that cultivating optimism is an effective mental tool to overcome health challenges (Briley, Rudd, and Aaker 2017). Projecting healthier and happier self-images prompts some informants to strive to be medication-free. David explains how "that's got to be the goal. I don't know anyone who wants to take medicines all the rest of their life besides vitamins, you know. So that is what I want to accomplish, I want to wake up on my own terms one day." Pro-specting thus helps individuals to develop a higher level of health consciousness (Jayanti and Burns 1998), impelling them toward a state of full health. In this regard, pro-specting may be tied to maturity-based wisdom in that it involves reflexive actions. As with retro-specting, touch points based on pro-specting may tap into powerful motivations stirred by visions of self.

Habitus Negotiating. Unhealthy habits such as chain smoking, high fat diets, and limited exercise have been associated with the poor and working class (Snead and Cockerham 2002). These habits have been mainly attributed to structural impediments in inner-city neighborhoods, and can thus be linked to the meso conditions of economic privation, socio-spatial ecology, and medical marginalism (Crockett and Wallendorf 2004). Our data further highlights the structuring, distinct from the structured, nature of habitus, and thereby offers an important insight on how habitus influences compliance. Bourdieu (1984) uses the term habitus to describe the co-constitutive relationships among individuals' social positions, dispositions, and actions. He argues that habitus is a cognitive map, structured by individuals' material and social conditions of existence, and inculcates a worldview, or embodied ways of thinking, feeling, and acting.

Such embodied preferences critically inform patterns of consumption practice (Holt 1998), which we propose includes compliance.

We find that as informants strive to make sense of chronic illness, they continuously negotiate the demands of compliance with embodied preferences. In so doing, they attempt to reconcile the appropriateness of so-called healthy behaviors vis-à-vis established normative patterns of the worlds in which they dwell. We call this interpretive act habitus negotiating. Habitus negotiating centers on navigating two sources of tension, namely white health discourses and dietary meanings and memories.

White Health Discourses. Informants are confronted with white health discourses as reflected in the philosophy underpinning healthcare. That philosophy is rooted in the biomedical model and white cultural norms (Wong and King 2008). The biomedical model, which prevails in clinical practice, links symptoms to a disease with specific biological causes and outcomes, while ignoring a patient's history, lifestyle, and beliefs (Bury 2001; Miewald 1997). A chronic disease thus represents a biologic or psychophysiologic malfunction (Kleinman, Eisenberg, and Culture 1978). The model goes hand in hand with white cultural norms in healthcare, which emphasize technical mastery over a disease and individual responsibility in healing (Wong and King 2008). Accordingly, the burden of responsibility for adherence rests on the individual through personal agency, often in the name of 'self-managed care,' and on assumed powers to observe medical directives (Prime Access 2013; Sabaté 2003). The resulting discourse places the blame on the victim for not following directives and equates compliant behaviors with virtue (Trostle 1988).

White health discourses are at odds with our informants' experiences in managing and living with severe illnesses. We observe Kevin attempting to reconcile this tension: "One of the

hardest things for me was to take my medication. My doctor used to get on me all the time about it. I would try hard and I know how important it is, but, you see, a lot of people I know don't take their meds either. You know, I grew up with people that has seizures and still wouldn't...even my sister, she don't [sic] take her med and she has seizures...Just like my father. He died of smoking, well, cancer. He had a chance before it got too late, but he wouldn't go to his treatments."

Kevin's comments reflect Bourdieu's (1984) notion of habitus as a repository of dispositions and shared ways, which are formed via socialization within a particular group, and thereby yield similar repertoires of action across its members. As the above quote captures, habitus is instrumental in creating pathways toward health actions. Having grown up in a family inattentive to health, perhaps due to the aforementioned mistrust of the medical establishment in the black community, Kevin struggles to heed his doctor's advice. Filtered through habitus, the orders fail to resonate with Kevin since taking care of himself as an individual responsibility is not in his repository of dispositions. Simply put, taking care of one's self, including compliance, is not something that people like Kevin do. His comments reveal the powerful role of habitus in imposing perceptual boundaries around what is probable in a given socio-cultural and – historic container.

Habitus negotiating becomes particularly problematic when individuals make inferences about their health based on family membership rather than clinical diagnosis. Thurgood explains, "Like if my pa's colon test is good, they [family members] say I'm good for ten years. If I'm good, sis figures she's good, too. Same thing with hypertension." The dire implication is that formal diagnosis is not pursued if specific illnesses are not evidently running in the family. A touch point opportunity is to educate individuals of the importance of medical testing, especially in high-risk communities, instead of relying on recall of family health history (Martens 2010).

Dietary Meanings and Memories. Habitus negotiations are also centered on the tension between dietary meanings and memories on the one hand, and imposed health and compliance standards on the other. Because hypertension is so closely linked to food intake, with salt and fat its nemesis, informants like Kevin reflexively consider what to eat: "He [my doc] tried to get me to change my diet, to eat right and exercise. Me being hardheaded, I never changed my diet or exercise. If only I can cut down the fries and greasy food, I still think I can wean myself off at least one med. But one of my biggest issue is I love McDonald's French fries. They really have a lot of sodium in it. I know if I cook the fries myself, it wouldn't be as bad because then I could put garlic on them and I would use vegetable oil, and it would be fresh potatoes. I know my French fries would be a whole lot better than McDonald's fries, but I just can't."

Food has historically held potent meanings for African Americans (Wallach 2015). Mitchell (2009) argues that under slavery, food symbolized freedom since its consumption represented a rare facet of plantation life where choice could be exercised. It also symbolized community because the sharing of crops and cooking enabled slaves to forge ties with one another. Staples like yams and ham hocks became known as soul food after the great migration brought blacks to northern cities in search of work. Soul food evolved into the edible symbol of the black cultural and civil rights movements, heightening black pride and identification (Miller 2013). McDonalds then began offering one of the few franchise opportunities to blacks, resulting in their strong affinity for the brand and its products. Yet recent white health discourses have linked both soul and fast foods to high rates of obesity and coronary disease, stigmatizing them as 'killer foods' and stirring up identity tensions within the black community (Swindall 2015). Kevin's comment becomes meaningful in this socio-historic backdrop. Eating

McDonald's French fries evokes a temporary sense of freedom for Kevin. At a deeper level, however, habitus deeply marks Kevin's struggles to make spontaneously healthy choices.

Embedded in habitus with shared dietary meanings are personal preferences linked to formative food memories. The meanings and memories create a profound discrepancy between the habitus of doctors and that of patients, a discrepancy that animates conflicts in eating practices and medication taking as represented in this informant quote: "The doctor was actually a friend of mine, he just told me flat out: '…the way you're eating is giving you high blood pressure.' And even though he was a friend, I was like 'Yeah, right! You're not going to tell me I can't have a fried pork chop.' So I didn't listen to him or take the meds he gave me…it runs through the family too, so I've been hearing it since I was two or three years old: 'Hypertension affects African-Americans more than anybody else, and it's the foods we eat.' If it's the foods I love, the foods we were raised on, so what's the point? What are you all trying to tell me?'" The quote reflects how rooted food preferences are in early childhood experiences (Raju, Rajagopal, and Gilbride 2010).

The comment strikingly illustrates how food, as a critical means through which individuals explore the boundaries between taste and memory (Mitchell 2009; Sutton 2001), affirms identity as well as kinship and communal ties. Habitus is tightly bound with early memories of food that color preferences or tastes, and continually shapes choices within reproducing economic, social, and cultural capital structures (Bourdieu 1984). As such, habitus negotiating is a critical interpretive act through which informants evaluate the appropriateness of prescribed healthy behaviors—the terms of which are often constructed by white medical actors with class specific norms in mind—vis-à-vis the world of low status and low capital.

Along with habitus negotiating, healthy food choices and related preventative measures

are propelled by an individual's motivation to pursue those choices (Dellande et al. 2004; Jayanti and Burns 1998). Involved in motivation are readiness to take the recommended actions and evaluation of the feasibility and efficaciousness of doing so (DiMatteo et al. 2007; Miller and DiMatteo 2013). At the same time, it is recognized that motivation alone does not explain the pursuit of healthy behaviors and the corresponding avoidance of unhealthy ones, such as eating McDonald's French fries knowing the harmful effects. A range of factors directly, indirectly, and interactively play a role in these decisions, including mood, regulatory focus, self-control, outcome sequence, riskiness of options, and materiality of rewards (Bowman et al. 2004; Mukhopadhyay and Johar 2005; Redden and Haws 2013). Critically, our study uncovers habitus negotiating as a situational cause not previously discussed. Habitus negotiating also provides a needed explanation for the dynamics of extended, continuous, and imposed (or negative) consumption, which has not been well studied compared to short-term, episodic, and volitional health choices.

The Liminality of Compliance

We find through our interviews that long-term medication taking is experienced as a series of internally negotiated, outwardly tentative movements towards or away from prescribed behaviors, in contrast to medical research portraying compliance as a lasting all-or-nothing condition (Brannon and Brock 2001; Janssen et al. 2008). Medication taking is thus an existential liminality of not firmly residing in the world of compliance or noncompliance, as represented by the opposing arrows in the two ellipses of Figure 1. Though all informants strive to adhere to therapies, their efforts and results are often fragile, and easily stalled or pushed in the opposite direction in the face of denied medical care, lack of relational support, or other contextual constraints. Since the decision to comply is confronted daily, sometimes multiple times a day,

opportunities to deviate from instructions occur with high frequency, making proper medication usage difficult to sustain over a lifetime.

This liminality occurs at the intersections of life sphere influences, which produce vacillations between compliance and noncompliance. In particular, liminality arises from 1) the independent effects of the meso, micro, and interpretive spheres (shown as rectangles in the figure); 2) the diverse, contradictory impacts emanating from elements in each sphere (depicted by the + and – signs); and 3) the interactions of the meso and micro with the interpretive spheres (indicated through the figure's curved arrows). Because these myriad influences are not unidirectional but a mix of propelling and inhibiting forces, compliance wavers from correct to incorrect consumption and all gradients in between (e.g. by ignoring some but not all instructions). These pushes and pulls cause individuals to cross the threshold repeatedly between conforming to and violating standards of treatment.

Liminality as articulated in anthropology is the transitionary experience during rites of passage, e.g., from being single to getting married (Van Gennep 1960, Turner 1979). Rites of passage involve movements between positions, first detaching from the current status by abandoning its rituals and social norms. This disruption produces a temporary state of ambiguity and paradox before transitioning into a new role with its conventions. We contend that liminality can be quite lasting and the transition reversed or frozen. While we focus on how everyday settings induce this betwixt-and-between state, the asymptomatic nature of the illness also contributes to pendulum swings. For hypertensive individuals, throbbing headaches, swelling hands, or the other signs of high blood pressure are not always present, so they may believe (or want to believe) that they are fine, even cured. They consequently halt or reduce their medications like Dwight and Wilona. When symptoms re-appear or a health crisis occurs,

individuals are forced to return at least temporarily to therapies. Nonetheless, the disease requires a lifetime of active management where benefits are not apparent or tangible (e.g. staving off early death), whereas the downsides are (e.g. experiencing side effects, financial costs, and schedule inconveniences). These disease characteristics lower compliance.

More broadly, we observe that liminality is at the center of post-purchase experiences, revealing a complexity overlooked in current theories and representations of the customer journey. By viewing post purchase through the lens of chronic illness medication compliance, we observe how partial and ephemeral usage is, subject to the shifting winds of circumstances. In lieu of conceptualizations that present the journey as a highly predictable linear progression from one consumption decision to the next, we propose that the journey is quite tenuous. Through the narratives of Yolanda and Thurgood, we illustrate the provisional nature of liminality due to convergence of meso, micro, and interpretive forces.

Yolanda's Liminality. Working as a kindergarten teacher's aide, Yolanda was diagnosed with hypertension and diabetes following a stroke. At the time of diagnosis, she lived with her daughter Christine, who provided around-the-clock, post-stroke care by scheduling and accompanying her to doctor appointments, keeping a close watch on her diet, and dispensing her pills at the right time. With Christine's help, Yolanda was compliant for two years, underscoring the impact of positive relational networks, a micro-individual factor. However, Christine passed away from cancer at the end of those two years. Without close personal oversight, Yolanda stopped her medications. She had become so dependent on Christine that she could not recognize, let alone recall the names of, any of her pills. Adding to her emotional loss were the stresses from having to work a low-wage, part-time job, and fighting Christine's former husband for custody of her grandson, i.e., conditions of her meso environment.

Upon becoming that child's temporary caretaker, she resumed the drug therapy. Nonetheless, grief over losing her daughter combined with the burden of child-rearing gradually took their toll, and she turned to alcohol for respite. Her drinking began to increase, so she became concerned about potential drug interactions. To manage these effects, she applied the interpretive practice of body reading, keeping to her medications less on alcohol binge days and more on custody court and physician appointment days. Without the attentive care of her daughter to ensure compliance (a relational resource), she relied on her own insights of how her body holds enough in the "system" to tide her over during a drug holiday (an interpretive act). Her actions illustrate the connection between micro and interpretive realms.

After several months of compliance yo-yo-ing, Yolanda experienced an epiphany: "I realized I won't be living if it weren't for my daughter. If she wasn't paying attention to me when I was stroking, I probably wouldn't be here today. She wanted me to live! I said, 'I will do this [taking medications] for Christine 'cause she wanted me to carry on." The epiphany moves Yolanda to assume responsibility for her own health and develop a system of pill scheduling: "Christine knew every medicine. I'm not that type of person, but I know I'm supposed to take them and I've arranged a system for that [turning bottles upside down after taking a pill]. I know better to make an appointment when they run down, because like this pill here, they wasn't [*sic*] going to give me any more of this unless I've seen the doctor." Yolanda's shift toward compliance was propelled by maturity-based wisdom. As she considered what her daughter would have wanted and done for her, she implemented her own workable system of pill monitoring and appointment setting. Still, she confesses that many days are a struggle to stay with her self-devised system. All in all, Yolanda finds herself caught between being compliant at times and distant from it on others in response to her life spheres' direct and interacting effects.

Thurgood's Liminality. Thurgood was diagnosed with hypertension thirty years ago but did not take his condition seriously since he felt no overt symptoms: "Yeah, I was like off and on taking meds, you know, when they ran low, I didn't refill them right away. 'Cause my blood pressure didn't feel like it was high to me at that time where I need to take medicine." Unfortunately, his condition worsened over the years as a result of his own neglect and the meso condition of medical marginalism. Like many other low-income informants, Thurgood did not have a primary physician he regularly saw due to a lack of medical coverage.

Without consistent oversight from a physician, Thurgood's blood pressure failed to stabilize. The situation produced an anxiety that compounded the hypertension further. He explains how at times he felt he was a victim of an indifferent medical system: "My blood pressure was seesawing then. It wouldn't stay level because, they don't do nothing for you, they'll just say that's your life, your medicine. You take it or not, nobody cares. You have to have a primary doctor to tell you like 'yes you need to go up [dose]' or 'you need to go lower.'" The absence of a supportive primary care doctor represents a critically weak relational tie, or micro-individual condition, that discourages compliance.

After a period of dissatisfaction with not feeling well, Thurgood created a routine of eating garlic, abstaining from illicit drugs, and taking his medications. He proudly recalls staying clean and keeping to his therapy for six months. It all came to an abrupt end when his estranged daughter, a negative relational influence, moved in with him. Her drug abuse triggered Thurgood's old addiction and derailed his healthy lifestyle. He was subsequently evicted from his apartment and moved into a senior home for welfare recipients where drug and alcohol abuse was rampant.

Living in a housing complex where the socio-spatial ecology (a meso environmental condition) is at odds with compliance, Thurgood negotiated the tension with a body reading practice: “When I get high, a lot of times I can feel like I’m going to have an asurism [*sic*]. The blood goes on my right side, I can feel it. Then I’ll take a double or triple dose of my blood pressure pill to bring it down. The nurse who checks on me weekly tells me I shouldn’t do that, I should just take one pill a day. But the blood ain’t got nowhere to go, so it will just bust, you know, in your head. I don’t want that so when I’m drinking, if I feel like it [aneurysm] is coming, I double dose and that brings it down.” In this instance, a meso condition interacts with an interpretive practice to shape medication consumption.

While Thurgood engages in misguided efforts to regulate his blood pressure, he remains motivated to comply by the approving commentary of the visiting nurse: “I feel good and happy when she [nurse] tells me I’m doing good. It makes me want to do better. I want to get back to eating garlic again. She can tell when I fall off the wagon and start doing my stuff [using drugs] and then I feel bad. Oh yeah, she can tell, so I tell the nurse, as soon as she leaves I’m eating something and taking my med. And I do that.” Thurgood is no longer subject to medical marginalism, because he receives the reliable care of a nurse who visits him at his home. Yet other meso, micro, and interpretive forces move him between compliance and noncompliance.

Discussion

The aim of our study is to understand more fully the nature of and influences on the consumer journey by attending to direct long-term usage experiences in daily life settings. We empirically examine the medication compliance efforts of lower income African Americans suffering from hypertension as a means of gaining insights on the journey beyond useful articulations by Lemon and Verhoef (2016) and Spanjol et al. (2015). As summarized by Figure

1, we discover that 1) the journey is shaped by contextual life spheres, specifically meso-structural conditions, micro-individual factors, and interpretive acts, which propel and inhibit medication compliance; and 2) at the center of this process is a liminal state between compliance and noncompliance, where behaviors nearer and further from the ideal are enacted in response to interplaying situational forces.

Our contribution is a novel, integrated, and nuanced framework emphasizing the journey's liminal and contextual nature. We detail a range of consumption experiences (from cognitive and emotional to physical and symbolic), as well as account for how an individual's life setting impacts usage and thus his or her journey. Opportunities for touch points lie in the circumstances surrounding consumption. Furthermore, our study challenges the view that the journey is a steady, linear, detached progression with definitive or lasting states, since we uncover pendulum swings over short and long stretches of time between compliance and noncompliance. These findings have practical, theoretical, and policy implications for marketing and healthcare.

Marketing Implications

Our study presents several implications for marketing practice. While companies focus on pre-purchase and purchase phases, they largely assume post-purchase, especially extended usage, is the responsibility of consumers (Sabaté 2003; Stremerch and Van Dyck 2009). For pharmaceutical firms, once the prescription is written, it is up to consumers to follow through. In this regard, touch points are thought to be "customer-owned," such that the "firm, its partners, or others do not influence or control" it (Lemon and Verhoef 2016, 78). Yet our study indicates that chronically ill individuals desire and expect post-purchase assistance. The first implication is for firms to reconsider their detachment from the post-purchase phase by proactively designing and

implementing touch points that motivate, guide, and make usage more feasible. These touch points should account for the contextual effects on, as well liminality of, compliance.

Our study suggests that opportunities for touch points exist in life spheres where meso-structural conditions, micro-individual factors, and interpretive meaning-making greatly affect usage behaviors. Drawing on our findings and Lemon and Verhoef's (2016) typology of touch points as brand-owned (managed by the firm), partner-owned (managed with partners), customer-owned (managed by the customer), and social/external in nature (managed by public or third-party sources), we suggest several strategies in the meso, micro, and interpretive categories to improve compliance among the chronically ill and disadvantaged as shown in Table 2. The table is for illustrative purposes only and does not detail all possibilities.

[Table 2 about here]

Marketers can implement touch points to prompt consumers to consistently and correctly use their medications. A sample strategy of a social/external touch point incorporating interpretive acts is to host healthy shopping, cooking, and eating workshops in local community centers to demonstrate how traditional soul food recipes can be modified for those with hypertension. The approach taps into the interpretive act of habitus fitting, so that hypertensive persons enjoy foods they are accustomed to while maintaining medication routines. A second example is marketers creating and sending high-graphics mobile phone instructions on correct medication usage and accompanying health practices to individuals. This way individuals irrespective of their degree of cultural capital receive easy-to-understand and -follow directions to comprehensively manage their condition. The strategy leverages a brand-owned touch point at the micro-individual level.

A related implication for marketing practice is to develop touch points through co-creation activities. In view of our finding that usage consists of sporadic lurches at compliance, it is important for marketers to work closely with customers to develop relevant, impactful, and meaningful ways to strengthen proper consumption over prolonged periods. Platforms for collaboration include co-creation workshops, consumer advisory boards, and in-community pilot program testing. Importantly, co-creation efforts must be anchored in an organizational mindset of placing actual customer experiences at a business' core (Homburg et al. 2017).

Co-creation activities are known to be especially useful to conceive strategies for disadvantaged consumers (Santos, Lazniak, and Facca-Miess 2015). Our findings reveal that disadvantaged persons experience stressors and scarcities that affect usage in distinct ways. Ideals of self-control and technological mastery, rooted in the assumption of resource sufficiency and freedom of choice, prevail in institutional marketing and healthcare (Wong and King 2008). Noncompliance can be an unfortunate byproduct of the colliding worlds of institutionalism on the one hand, and illness and privation on the other (Mielwald 1997). Strategies developed through co-creative efforts with the disadvantaged may reduce this byproduct as suggested by base-of-the-pyramid initiatives (Ben Leteifa and Reynoso 2015; McColl-Kennedy et al. 2017; Sweeney, Danaher, and McColl-Kennedy 2015).

Our study focuses on post-purchase because it is arguably the most overlooked yet consequential portion of the journey. Post-purchase is where relationships between customers and the firm are lastingly forged or severed. However, given our findings one theoretical marketing implication is the possibility that the two preceding stages of the journey are likewise phenomenologically complex. Moreover, the entire journey—from pre-purchase to purchase through post-purchase—may be more tenuous than previously conceived. Our finding of the

liminal and contextual nature of extended, post-purchase usage belies the notion of journeys as a concrete sequence of rational-cognitive choices prodded in consumers. Examination of direct pre-purchase and purchase experiences may reveal an equally delicate set of emotional, somatic, symbolic, and cognitive behaviors subject to multi-directional influences. Past research isolates elements of the journey for parsimoniously predictive models (Brakus, Schmitt, and Zarantonello 2009; Verhoef 2003). Nevertheless the absence of experiential and contextual details may fail to capture the rich and conflicting influences that produce less than consistent actions.

A second implication for marketing theory is the need to develop multi-plex and multi-level journey models. We find for instance that economic privation has a direct influence on post-purchase usage in that living in poverty translates into having to abstain, borrow, or take only a portion of the directed number of pills. By comparison, the effects of socio-spatial ecology are indirect: through an absence of jobs in a community, consumers travel long distances to outside jobs, undermining compliance through fatiguing schedules. Furthermore, impacts vary by valence. While meso-structural conditions generally impede usage, micro-individual endowments support it. Still other elements, namely body reading and habitus fitting, pull individuals simultaneously toward *and* away from heeding instructions. Finally, elements in the life spheres affect each other. When the meso element of medical marginalism prevents access to timely and accurate illness diagnosis, informants turn to body reading for insights on their conditions to decide on medication taking. Such findings of heterogeneous influences from higher (meso) and lower (micro and interpretive) realms underscore the need for move away from the simple, unidirectional funnel concept of the journey toward more comprehensive models that incorporate several dimensions and directions simultaneously.

Healthcare Implications

Though healthcare practitioners typically assume compliance is a small task easily performed, circumstantial realities such as weak relational networks paint another picture (Molloy and O'Carroll 2017). Consequently, one implication of our study for healthcare practitioners is to assess and monitor patients' unique life spheres. Documenting life spheres may be as simple as asking patients how they are doing and probing openly for details at each visit, or as involved as regularly administering questionnaires regarding life spheres with follow up interviewing to understand areas of compliance difficulty (Amutio-Kareaga et al. 2017). The data can be used to develop journey maps that depict each patient's distinctive meso, micro, and interpretive barriers and facilitators to medication taking. With the maps, patients can conceive and implement their own compliance solutions rather than be told what to do.

A second implication for healthcare practice is to improve compliance by incorporating life sphere analysis into minimally disruptive treatments. Clinicians who acknowledge the heavy toll on patients exacted by chronic illnesses (such as depression) and medication consumption (such as side effects) are beginning to develop therapeutic approaches that reduce such burdens. The concept, known as minimally disruptive medicine, are treatments that account for the strains from life demands relative to available resources to manage those demands, including a patient's psycho-emotional capacities (Leppin, Montori, and Gionfriddo 2015; Shippee et al. 2012). We suggest that compliance can be strengthened by incorporating life spheres analysis into the design of minimally disruptive treatments. Specifically through this analysis, clinicians can sensitively identify points of resource sufficiency or insufficiency in a patient's day-to-day environment. These points can be then be strengthened or mitigated and treatments adjusted for greater compliance.

Another practice implication is for healthcare providers to understand and accommodate interpretive practices where appropriate. Patients make compliance decisions filtered through these personalized forms of sense-making. By gaining insight on what interpretive practices patients use and how, healthcare providers can tap into those practices to increase compliance where helpful and correct them where harmful. Thus, for instance a patient who applies body reading to abstain from medications in order to binge on alcohol can be told how toxic interactions work and under what conditions and timeframe to safely curtail medications. For a patient who applies pro-specting, phone reminders can be sent about medication taking, accompanied by a photo of or text from loved ones.

Alongside implications for healthcare practice, we offer several for healthcare policy. Our study underscores that compliance is an arduous journey fraught with many obstacles. One implication is to accept that noncompliance is what many, if not most, of the chronically ill will do. Instead of exclusively seeking ways to alter behaviors, the focus can shift in part to the medicines themselves, specifically to make them safer to tolerate and yet efficacious under various conditions of use (Pound, et al. 2005). Critically, this path requires reconsidering present methods of drug development and testing (Horrobin 2003). Drugs can be designed that are efficacious within a range of compliance, accommodating some degree of deviation in use. The approach would be akin to creating a product that withstands a level of abuse or error but still functions well. Additionally, more attention can be paid to safety at the testing stage, possibly by imposing a probationary period to prove little to no harmful effects before licensing or regulatory approval.

As another policy implication, public funds can be allocated to research and develop treatments patients prefer rather than assume a one-size-fits-all approach. With the rise of

alternative, complementary, and integrative medicine, both in regulated clinical settings as well as consumer markets (Thompson and Troester 2002; Tian et al. 2014; Wong and King 2008), individuals increasingly prefer to augment, combine, or replace prescribed pharmacologic products with traditional medicines, acupuncture, herbal remedies, meditation, or non-interventionist methods. Importantly, research should also examine the safety, efficacy, and cost effectiveness of these treatments for specific chronic diseases.

A final policy implication is with respect to socio-economically disadvantaged consumers. Systemic restricted choice reflects the unequal distribution of choice in society, and is often based on race, ethnicity, religion, cognitive abilities, and other forms of differentiation. Our informants live under systemic restricted choice that impose barriers to well-being. Bone et al. (2014, p. 463) observes that long-term goal frustration experienced by minorities results in self-frames of imprisonment, servitude, or slavery, and a perceived lack of "individual control in the choice journey." Encounters with a medical system designed to serve mainstream populations can remind minorities of their subordinated status and elevate distrust of the medical establishment (Lewis et al. 2010; Miewald 1997). Our last policy implication therefore is to remove restricted choice in the medical system by enabling all individuals to receive quality healthcare. Disparities in healthcare do not save money by serving fewer, but according to recent meta-analyses does the opposite by increasing use of emergency services, raising overall mortality and chronic disease rates, and lowering medication compliance (Sommers, Gawande, and Baicker 2017; Woolhandler and Himmelstein 2017). In conclusion, the consumer journey consists of liminal movements shaped by complex life forces. Our hope is that researchers will join us in studying other direct consumer experiences in order to produce a rich, relevant, and evolving portrait of the journey.

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Table 1. Profiles of Study Informants

Pseudonym	Gender	Age	Education	Employment	Annual HH Income	Health Insurance	Number of medications
Joakima	F	57	Less than HS	Unemployed	< $20,000	Medicaid	5
Frank	M	63	GED/HS Graduate + 2 yrs college	Unemployed	< $20,000	Medicaid	20
Juanita	F	46	GED/HS Graduate + 1 yr college	Unemployed	< $20,000	Medicaid	10
Melvin	M	49	GED/HS Graduate + 2 yrs college	Unemployed	$20,000 - $40,000	Medicare	4
Freda	F	55	GED/HS Graduate + 1 yr college	Disabled	< $20,000	Medicaid and Medicare	12
Shondra	F	56	GED/HS Graduate + 2 yrs college	Full time - 2 jobs	> $40,000	Private	1
Dwayne	M	57	Less than HS	Disabled	< $20,000	Medicaid	5
Thurgood	M	59	GED/HS Graduate	Disabled	< $20,000	Medicaid	6-7
Nancy	F	74	College - 4 year degree	Retired	$20,000 - $40,000	Medicare	3
Darnell	M	39	GED/HS Graduate	Unemployed	< $20,000	Medicare	4
Amos	M	64	Less than HS	Retired	< $20,000	Medicaid	14
Wilona	F	68	GED/HS Graduate	Disabled	$20,000 - $40,000	Medicaid, Medicare	11
Kendrick	M	53	Graduate Degree	Unemployed	< $20,000	Medicaid	7 to 8
Esther	F	69	College - 4 year degree	Retired	< $20,000	Medicaid, Medicare	16
Daniel	M	44	College - 4 year degree	Full Time	> $40,000	Private	3
Clara	F	47	Less than HS	Part Time	< $20,000	Medicare	6
Ben	M	52	GED/HS Graduate	Full Time	>$40,000	Private	6
Yolanda	F	60	GED/HS Graduate	Retired	< $20,000	Medicaid	7
Ruth	F	48	Less than HS	Unemployed	< $20,000	Medicaid	8
Marcella	F	41	College - 4 year degree	Full Time	$20,000 - $40,000	Private, Medicaid	7
Terry	F	43	Less than HS	Homemaker	< $20,000	Medicaid	3
Godfrey	M	65	Less than HS	Retired	< $20,000	Medicaid, Medicare	7
Sheila	F	77	GED/HS Graduate + 1 yr nursing	Retired	< $20,000	Medicare - Part B Only	5
Dwight	M	44	GED/HS Graduate + 2 yrs college	Disability	< $20,000	Medicaid, Disability	6
Taffeta	F	75	Two year degree/certificate	Retired	< $20,000	Medicaid	13
Gloria	F	61	Less than HS	Unemployed	< $20,000	Medicaid, Medicare, Disability	6
Janice	F	56	GED/HS Graduate	Unemployed	< $20,000	Medicaid	10
Bobbie	F	68	Less than HS	Unemployed	<$20,000	Medicaid, Medicare	8
Constance	F	57	Two year degree/certificate	Disability	<$20,000	Medicaid, Disability	5

Table 2. Sample Life Sphere Touch Point Strategies for Improved Medication Compliance

Life Spheres / Touch Points	Meso-Structural	Micro-Individual	Interpretive Acts
Brand-Owned	Life sciences firms distribute free medication samples in trial packs to reduce financial barriers and product wastage. Allows for initial monitoring of drug safety and efficacy so that prescription adjustments can be made sooner rather than later in the course of treatment [Economic Privation]	Pharmaceutical firms redesign and provide drug pamphlets to pharmacists for distribution to low literate consumers. The pamphlets have graphics-only instructions on when and how to use the specific medication, as well as common side effects and action steps in the event these occur. [Cultural Capital]	Life science firms sponsor and organize health awareness events with famous role models suffering from the chronic condition, such as Toni Braxton, who has hypertension, or Serena Williams, who defeated pulmonary embolism. The models share tips and inspirational stories of overcoming infirmities through complying. [Pro-specting]
Partner-Owned	Medical social workers utilize geographic and socio-economic data to determine where consumers reside, locations of nearby pharmacies, and routes for public transportation. Social workers can then suggest the most convenient ways consumers can obtain prescriptions. [Socio-spatial Ecology]	Nurses place phone calls or send text messages to consumers after appointments to encourage compliance and determine any issues with taking medications. Similarly, pharmacists can send reminders for refills and following instructions. [Relational Resources]	Physicians learn about each consumer's body reading practices. In subsequent examinations, physicians engage with consumers about ways these practices are helpful or hindering in compliance efforts and adjustments that can be made. [Body reading]
Customer-Owned	Consumers provide current health care access information, such as having a regularly seen physician and receiving appropriate care. The information is used by social workers and healthcare providers to develop a plan of services to improve compliance and overall health. [Medical Marginalism]	Consumers use an easy phone-based diary system to record brief two-minute reflections each week on life spheres and medication taking. These entries are reviewed and discussed with a social worker at the next appointment to engender reflexive compliance through the consumer's own insights. [Maturity-based Wisdom]	Consumers share at health fairs about the prevalence of chronic illnesses in their communities, signs of severe illnesses, and consequences of ignoring signs and not seeking and following treatment, all from a personal perspective. [Retro-specting]
Social-External	Government-provided mobile phones to low-income consumers are installed with healthcare apps to monitor blood pressure and other vital signs, schedule medication taking, and offer motivating and educational content on well-being and compliance that can be easily viewed. [Medical Marginalism and Socio-spatial Ecology]	Hospitals and clinics organize well-being and compliance circles among individuals suffering from the same chronic conditions. The circles meet regularly to share challenges in and support their efforts in self-care, including medication taking. [Relational Networks]	Local community organizations provide healthy shopping, cooking, and eating programs showing how traditional soul food can be modified and still be enjoyed, consistent with habitus, focusing for example on yams, pork, and collard greens steam cooked rather than fried [Habitus fitting]

FIGURE 1. MEDICATION COMPLIANCE AS LIMINAL MOVEMENTS SHAPED BY INTERPRETIVE, MESO, AND MICRO LIFE SPHERES