

Provider–Patient Communication and Involvement in Physical Activity Programs Among Patients Receiving Physical Therapy Services: A Qualitative Study

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Abstract

Objectives: To describe how physical therapy providers and their patients interact and communicate about physical activity (PA), and explore the barriers and facilitators to patient involvement in PA programs. **Method:** We conducted 39 direct observations of patient visits with physical therapy providers and 30 telephone interviews with physical therapists (PTs). We conducted a thematic analysis of observation field notes and interview transcripts. **Results:** PTs and patients engaged in several behaviors to build rapport, discussed PA type and frequency, and exchanged advice and information about PA. Barriers to patient participation in PA programs included low instrumental support, physical limitations, lack of motivation and confidence, and lack of knowledge about available programs. Facilitators included emotional support from friends, peers, and family, and encouragement and information-sharing from providers. **Discussion:** PTs play an important role in improving older adult PA and could be instrumental in reducing barriers to PA participation.

Keywords

physical activity, communication, qualitative methods, physical therapy

Introduction

Participation in physical activity (PA) can reduce the risk of chronic diseases, which are the leading cause of death and disability among older adults in the United States (National Center for Health Statistics, 2016). However, less than half of adults aged 65 years and older are meeting recommended PA guidelines (National Center for Health Statistics, 2018). With health care expenditures associated with inadequate PA reaching over US\$100 billion dollars annually (Carlson, Fulton, Pratt, Yang, & Adams, 2015), encouraging older adults to engage in PA can alleviate the economic burden associated with physical inactivity.

Barriers to older adult participation in PA include lack of professional guidance and information about available PA programs (Bethancourt, Rosenberg, Beatty, & Arterburn, 2014; Der Ananian, Wilcox, Saunders, Watkins, & Evans, 2006). Increasing provider–patient communication related to PA could reduce these barriers, as older adults value their primary care physician’s advice and expect guidance concerning healthy lifestyle modifications (Costello, Leone, Ellzy, & Miller, 2013). Multiple studies have found physician recommendation and encouragement for PA to be

facilitators to patient participation (Boehm et al., 2013; Hirvensalo, Heikkinen, Lintunen, & Rantanen, 2003; Jackson, Leclerc, Erskine, & Linden, 2005).

Most of the studies described above focus on primary care providers, particularly physicians. Less is known about other provider types such as physical therapists (PTs), and how they communicate with patients about PA. PTs work with patients to improve their mobility and promote overall fitness and have been described as key health care team members to address improving PA (American Physical Therapy Association [APTA], 2011). As a physical therapy episode of care involves a series of treatment sessions, PTs and their care team spend more time with patients compared with

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other health care professionals. These characteristics make physical therapy providers uniquely positioned to provide or support recommendations for PA.

Less attention has been also been paid to participation in community-based PA programs among patients receiving treatment at physical therapy clinics. In a recent study, Fishleder et al. (2018) assessed the capacity of PTs to develop linkages with community partners to increase patient referrals to community-based PA programs. In their study, the authors used an organizational-level framework to assess capacity from a systems perspective by focusing on PTs' ability to partner with community programs to increase patient referrals. They focused less on PA-related interactions that occur within a physical therapy clinic setting.

Using the same qualitative data source as Fishleder et al. (2018), we apply an interpersonal perspective to describe how physical therapy providers and their patients interact and communicate about PA. We also seek to extend Fishleder et al.'s discussion of the patient determinants of PA program participation, which the authors broadly described within the context of PTs' ability to provide counseling, by using patient and provider data to explore the barriers and facilitators to patient involvement in PA programs. Having a better understanding of the communication that occurs about PA and the determinants to participation among patients receiving physical therapy services can help to inform interventions to improve PA among older adults.

Method

This study was part of a larger randomized controlled trial (the PT-REFER trial; clinicaltrials.gov registration number NCT03139461). For a more detailed description of the methodology for the current study, refer to Fishleder et al. (2018).

Observations

We conducted 39 direct observations with 24 physical therapy providers in five outpatient physical therapy clinics in the Seattle, WA area. We conducted observations with the following groups (collectively referred to here as physical therapy providers): PTs, physical therapy assistants (PTAs), and assistive personnel. PTs and PTAs are licensed to provide physical therapy services and work to develop and/or enact a plan of care for patients. Assistive personnel (e.g., exercise specialists, physical therapy aides) have supportive roles and engage in personal interactions with patients, contributing to patients' overall care.

We recruited physical therapy clinics via cold calls and by reaching out to clinics that had previously established relationships with research team members. Patients had to be at least 65 years of age to participate in the study. We observed and audio-recorded provider-patient interactions during scheduled patient visits. The patients we observed were at varying points in their episode of care. We also

took handwritten field notes, using both a checklist and an open-ended instrument based on existing measures for observing medical settings (Callahan & Bertakis, 1991; Spencer, Logan, & Coiera, 2002; refer to Supplementary Materials). Physical therapy clinics that participated in the study received a framed certificate of participation. We conducted observations until we reached saturation (i.e., when no new information emerged from the data).

Interviews

We conducted 30 semi-structured telephone interviews with PTs across the United States. Based on feedback from an advisory board of PTs, we expanded our sampling frame to include PTs working in outpatient, inpatient, and home health clinics. To recruit PTs, we cold-called and e-mailed PT graduate programs and spoke with a research partner affiliated with the APTA, requesting that they send out a recruitment e-mail to PTs working with older adults. During the interviews, we asked PTs to describe how their patients benefited from participation in PA programs and their PA referral practices, including barriers and facilitators to referral follow-up. We audio-recorded all interviews. As incentive for participating, PTs received a US\$75 gift card. Interviews lasted 30 to 45 min. A professional transcriptionist transcribed all interviews verbatim. Similar to the observations, we conducted interviews until saturation was reached.

Data Analysis

Data analysis was conducted in ATLAS.ti version 7 (Muhr, 2016). We performed a thematic analysis of the observation field notes and interview transcripts. We used an iterative process to develop codebooks for both sources of data, with codes established a priori and emerging during analysis. We based a priori codes for the observation field notes on a modified version of the Davis Observation Code, a 20-item scale used to assess physician-patient interactions (Callahan & Bertakis, 1991). To ensure credibility of findings, the research team had prolonged engagement (Lincoln & Guba, 1985) with physical therapy clinics through direct observation and participated in peer debriefing among members of the research team (Pandey & Patnaik, 2014).

In addition, two research team members coded a random sample of the field notes and transcripts. We discussed disagreements in coding, with the codebooks subsequently refined after reaching consensus. The two research team members then coded the remaining data independently. We generated code reports to examine emergent patterns within and across the field notes and transcripts. To facilitate theme development and conclusion drawing (Miles & Huberman, 1994), we created matrix displays by key topic areas. We include here observation and interview quotations to support our interpretation of the data. Given our interest in understanding patient interactions with their physical therapy care

team, we report the findings for all physical therapy providers (PTs, PTAs, and assistive personnel) combined.

Ethical Considerations

We obtained oral and/or written consent from participants. Identifying information was not collected from patients; information collected from providers was not linked to their responses during analysis. All study participants received an information sheet or consent document, which described the purpose of the study, the voluntary nature of participation, and potential risks and benefits to participation.

Results

Provider Demographic Characteristics

Most physical therapy providers in the observation settings were female (67%, $n = 16$) and White (75%, $n = 18$). The largest percentage held a doctoral or professional degree (46%, $n = 11$). A majority of physical therapy providers were PTs (67%, $n = 16$), with an equal number of PTAs (17%, $n = 4$) and assistive personnel (17%, $n = 4$) observed. The average number of years in practice was 12. Most PTs interviewed were female (83%, $n = 25$) and White (73%, $n = 22$). Years in practice ranged from less than 5 years (20%, $n = 6$) to 15 years or more (27%, $n = 8$). Interviewed PTs worked in outpatient (30%, $n = 9$), inpatient (13%, $n = 4$), and home health settings (20%, $n = 6$); the largest percentage worked in multiple settings (37%, $n = 11$). For additional demographic characteristics on interviewed PTs, refer to Fishleder et al. (2018).

Interactions and Communications About PA

Based on observational data, we identified the following themes: (a) building rapport, (b) PA type and frequency, (c) advice seeking and giving, and (d) resource sharing.

Building rapport. Physical therapy providers engaged in several techniques to build rapport and encourage patient engagement in therapy and PA. Throughout the session, providers and patients engaged in small talk unrelated to PA. Topics of discussion included traveling, the weather, entertainment, and family (e.g., patient talking about their grandchildren). Provider–patient interactions commonly involved laughter or friendly banter and joking. For example, one physical therapy aide (assistive personnel) asked their patient whether they were doing okay when performing adjustments. When the patient responded “yes,” the provider jokingly responded “liar!”

Providers also commonly provided positive reinforcement when patients had made significant progress during the course of therapy or correctly performed an exercise. Providers expressed empathy when patients experienced

challenges associated with performing exercises prescribed by their PT or when participating in PA. While working with a patient who was experiencing pain and discomfort throughout their session, one PT apologized to the patient and stated, “I know it hurts.” In other cases, the provider would check in with the patient to see how they were feeling (e.g., “Are you getting tired?”).

PA type and frequency. During the episode of care, PTs assign home or independent exercises to support patient progress. Providers and patients engaged in several conversations about these assigned exercises, as well as other activities outside of therapy. Walking was the most common activity discussed; additional activities discussed included biking, yoga, and swimming. Conversations also focused on PA frequency and amount. For example, one patient described walking more often recently, noting that their goal was to try to walk for 20 min at a time. Another patient explained to their provider that they had started attending the gym 3 times a week.

During 15 observations the patient initiated conversation about PA outside of the clinic, although more often the provider was the one to initiate conversation (e.g., one PT asked, “Do you do any regular exercise, walking every day?”). Patients commonly shared with their providers challenges when attempting to engage in PA, usually due to pain. During one observation, a patient described having shoulder pain, which limited their ability to perform exercises during and outside of the physical therapy clinic. Nevertheless, providers spoke with patients about the importance of remaining active and being consistent with performing their assigned exercises.

Advice seeking and giving. Patients asked questions about PA, and providers offered suggestions or advice. During 14 observations, providers included specific recommendations for PA (e.g., encouraging a patient to walk in 10-min increments instead of 30 min at a time). Providers and patients also engaged in problem solving when patients experienced challenges related to PA. During one observation, the patient expressed challenges with losing weight, indicating that they had been exercising for 5 weeks but had only lost 2 lb. In response, the PT suggested walking faster and emphasized PA as part of a healthy lifestyle that would help the patient live longer.

Providers offered advice without specific questions from the patient, based on information described by the patient or knowledge of the patient’s condition and history. Providers also recognized the importance of rest and advised patients to take a break when needed (e.g., one PTA stated, “Sometimes you have a good day or bad day. If you need a break, that’s okay”). Given the functional limitations that many patients experienced, providers advised caution or expressed concern when patients spoke about participating in activities that could exacerbate or cause injury. For example, when one patient asked about using a stair climber

at their gym, the PT advised the patient to use caution because of the possibility of injury from incorrect use, suggesting that the patient wait to use the climber until they tried other exercises first.

Resource sharing. Providers shared resources with their patients related to PA. For example, one PT gave their patient contact information for purchasing an exercise DVD and equipment. Other providers gave written instructions on how to perform exercises learned during therapy. Two PTs explained to patients that these resources would help them remember to complete their exercises (e.g., “Let me print a picture for you. They are not the greatest but may be a little reminder”). Providers would commonly review resource information with their patient. For example, one provider gave a handout on therapy exercises to their patient, circling pictures on the handout and providing reminders about key points for each exercise.

Barriers to Patient Involvement in PA Programs

Based on interview and observational data, we identified the following themes: (a) low instrumental support, (b) physical limitations, (c) lack of motivation and confidence, and (d) lack of knowledge.

Low instrumental support. Low instrumental support was a salient theme, particularly in the interviews. Interviewed PTs described a lack of tangible resources as a barrier to their patients’ participation in PA programs. Not having transportation was one of the most commonly described barriers. One PT described the importance of having a caretaker or spouse who could drive the patient to the PA program (e.g., “If they have to take a taxi or rely on a friend all the time, they’re not going to [participate]”). While public transportation existed in some communities, interviewed PTs described these options as inaccessible or inconvenient (e.g., “Well, the patient usually has to wait 1-2 hours on either end of [the city-funded bus’s] transportation for pickup and taking them home”). During two provider–patient observations, patients described transportation as a barrier, particularly in rural communities.

Nearly all interviewed PTs discussed cost as a barrier to PA program participation, noting that many of their patients were on a limited or fixed income. In addition, not all PA programs were reimbursable through patient insurance. Even when reimbursement was available, upfront costs were sometimes prohibitive:

So being able to afford going to a group class, if it’s something that costs or especially if it’s something that they need like renting the therapy pool and that sort of thing—a lot of people are unable to afford that. Reimbursement is hard for the older population when they’re paying out-of-pocket, and particularly when they don’t have an income.

Although interviewed PTs frequently described cost as a barrier, this was not a topic of discussion during observations.

Physical limitations. A common barrier to participation in PA programs discussed was lack of physical capability to perform activities, which was frequently coupled with physical discomfort or pain. During one provider–patient interaction, the PT was eager to connect the patient to the Enhance®Fitness program, but the patient indicated that they wanted to be “back on their feet” before participating in the program. When we asked interviewed PTs how often they referred their older adult patients to community-based PA resources, about half referred fewer than 50% of their patients. Interviewed PTs mentioned not referring to PA programs patients who lack mobility (e.g., “If they’re not able to leave their house very easily or safely, I won’t recommend a community program”).

Lack of motivation and confidence. Another salient theme was lack of motivation as a barrier to patient participation in PA programs, described by almost a third of the PTs we interviewed (e.g., “it takes that internal motivation, right? So then even if they have handouts and even if they have resources at their fingertips—that motivation to want to do it”). Patients may fail to see the benefits of engaging in PA outside of therapy, which can further reduce their motivation (e.g., “They don’t understand the idea of exercising as a lifelong priority for them”). While less frequently brought up, patients may also lack confidence or feel anxious about engaging in PA programs. As one PT stated, “The seniors, they need insanely specific information on where it is and where is the parking, and what are they going to see. A lot of them are very nervous about going there.” Another PT described older adults feeling “intimidated” by attending places frequented by younger people.

Lack of knowledge. A less common theme was lack of information and knowledge about programs offered, which presented challenges to patient participation in PA programs. When describing the benefits of PA program participation, one interviewed PT stated the following:

I think there is tremendous benefit to participating [in PA]; however, I don’t see enough of it, or a lot of it, primarily because of the lack of knowledge of what’s available in the community . . . seniors don’t know what’s available in the community.

Similarly, during one provider–patient observation, the patient told their provider that they had not found a PA program because gyms do not advertise their programs.

Facilitators to Patient Involvement in PA Programs

Based on interview and observational data, we identified the following themes: (a) emotional support and social connectedness and (b) role of PT as facilitator.

Emotional support and social connectedness. A salient theme, interviewed PTs discussed emotional support as a facilitator for PA program participation among their patients. Support came from several sources, including peers, family, and caregivers. Peers not only provided encouragement for PA, but also participated in PA programs with their patients. PTs described participation in PA programs as an opportunity for patients to socialize with others who share similar life experiences:

Many [patients] have either lost friends through death or moving away, and also after retirement many of them stop being active. I believe that community programs allow them to be able to get the exercise, as well as be able to talk to other people who are in their situation and be able to set up the networking system.

Some of the PTs we interviewed described encouraging patients to bring a friend to their PA class, or communicated to the patient that someone they knew was going to be there (e.g., “. . . it’s a big pull with getting them to do things. Your friend is going to be there!”). Four PTs described connecting their current patient with former patients to encourage follow-up on PA program referrals. Family and caregivers also played an important role. When referring patients to PA programs, interviewed PTs described getting family members involved in the process (e.g., “I do talk to their family members, especially if I have a patient that wants to get better but somehow isn’t participating well. I look to the families to try to get motivation”).

Role of PT as facilitator. PTs served as a facilitator to patient participation in PA programs by following up with patients about referrals made to PA programs and reminding them to participate. PTs referred patients to programs such as Silver-Sneakers (the most common program referral), Bone Builders, and Enhance®Fitness, in addition to local classes for activities such as yoga and water aerobics. Interviewed PTs described giving “homework,” such as having patients check out a particular program before discharge and reporting back, although one PT noted that this strategy does not always motivate patients. Two PTs even described attending classes with their patients to support participation:

If it’s feasible, then I will actually go and attend the class with them at least once or twice just to make sure that they know where to go; that they feel comfortable, and that there aren’t any things that I would need to adapt for them to be successful.

PTs used their role as provider to emphasize the importance of program participation (e.g., “[patients have] learned to trust and respect . . . I think if you recommend something that has some weight to it”). Other interviewed PTs made sure to tell their patients the PA program was reputable or evidence-based when providing a referral. One PT stressed the importance of “enthusiastically” endorsing the program

(e.g., “I think they would be more willing to do it, if we were enthusiastically endorsing the program, because they kind of believe what we tell them”). However, PT endorsement of the program may not matter as much if barriers to participation persist (e.g., “. . . it really comes down to cost and how far away it is, like how hard it is to get to it”).

Interviewed PTs described providing information to facilitate follow-up on referrals to PA programs. For example, one PT gave their patient a resource sheet with information on the Enhance®Fitness program. Having a physical copy of the information was important, as it served as a reminder for the patient (e.g., one interviewed PT stated, “If they can put it up on their refrigerator, they might be more likely to see it and follow up on it”). When providing patients with information, PTs described targeting these resources to the patients’ interests, abilities, and needs. PTs also provided information to reduce tangible barriers to participation, such as lack of transportation.

Instead of referring patients to one particular program, PTs offered information about several programs, as they wanted to make sure that patients had program options that fit their interests and needs (e.g., “I sometimes will try to come up with at least two things for them to maybe choose from that I think might be a good fit for them”). One PT described providing several options as a way to reduce patient “excuses” for not participating (e.g., “I try to just give them all kinds of options to choose from so that they don’t have excuses as to why they can’t do this or that”).

Discussion

The purpose of this study was to describe how providers and their patients interact and communicate about PA and to explore the barriers and facilitators to patient involvement in PA programs. We expand upon the work of Fishleder et al. (2018), who used a systems perspective to assess PTs’ capacity to partner with community organizations to increase patient referrals to PA programs. Using the same data source, we focus here on provider–patient interactions with their physical therapy care team and on the determinants of PA among patients seeing physical therapy providers. The findings from this study suggest that physical therapy providers, in particular PTs (who are primarily responsible for developing a patient’s plan of care and making PA recommendations for PA), play an important role in encouraging PA.

PTs received patient requests for advice about PA, suggesting that they are seen as a trusted source of information and have the potential to influence older adult behavior. This is consistent with previous studies describing the positive impact that providers can make on patient health behavior (Boehm et al., 2013; Costello et al., 2013). However, it is important to consider factors that prevent PA in older adults. A common barrier to PA cited in previous studies (Bethancourt et al., 2014; Gillette, Petrescu-Prahova, Herting, & Belza, 2015; Stone & Baker, 2017) and also found here is that

patients face physical limitations that prevent them from engaging in PA. Cost and lack of transportation are tangible barriers to PA program participation described by interviewed PTs and in previous studies (Bethancourt et al., 2014; Schutzer & Graves, 2004).

PTs can reduce many of these barriers. In the current study, providers gave patients information about how to perform assigned exercises and existing transportation services. When describing PTs' ability to provide brief behavioral counseling, Fishleder et al. (2018) found that PTs helped patients acquire "barrier-breaking" skills to increase PA program participation. The way in which PTs interacted with their patients aligns with the Exercise as a Vital Sign program, which focuses on evaluating and documenting PA behavior during every patient encounter (Grant, Schmittiel, Neugebauer, Uratsu, & Sternfeld, 2014). Other approaches to improve PA participation that could be routinely integrated into PT practices include using health behavior theory to tailor communication about PA or routine screening on the social determinants of health (Daniel, Bornstein, & Kane, 2018; Van Sluijs, Van Poppel, Twisk, Brug, & Van Mechelen, 2005).

It is important to note that not all physical therapy providers discussed PA programming with their patients. As mentioned earlier, when we asked interviewed PTs how often they referred their older adult patients to community-based PA resources, about half referred fewer than 50%. Fishleder et al. (2018) found that although PTs desired to partner with PA programs for patient referrals, a lack of infrastructure to communicate with potential partners existed. Thus, increasing the capacity of PTs to develop these partnerships could increase the number of patients referred to PA programs. With that being said, PTs are educated to adapt their plan of care to the needs of the individual and refer to community-based services as appropriate (APTA, 2016). When a PA program referral would be inappropriate or unsafe (e.g., due to function limitations), PTs play a vital role in encouraging patients to participate in other forms of PA (e.g., home-based exercise), keeping up with their exercises assigned in therapy and remaining as active as possible.

Implications for Research and Practice

Interventions to improve older adult PA involving PTs should be developed and tested. As one example of this, the PT-REFER trial tested an intervention to develop partnerships between physical therapy clinics and YMCA associations to increase physical therapy clinic referrals to Enhance@Fitness for their patients. This study will contribute to our understanding of how to promote participation in evidence-based PA programming.

Although interviewed PTs frequently described cost as a barrier to older adult participation in PA programs, this was not a topic of discussion during provider-patient observations. Previous studies that have found patients are

sometimes reluctant to discuss their financial situation with their provider, believing that doing so could impact the quality of care they receive (Schafheutle, Hassell, Noyce, & Weiss, 2002). Additional research on how providers and patients approach this topic during therapy can shed further insight into how physical therapy providers can best provide patients with information to help reduce barriers to PA program participation.

Fishleder et al. (2018) recommend several approaches to increasing the capacity of PTs to partner with PA programs for patient referrals, including implementation of electronic and streamlined referral systems and having community partners initiate outreach to PTs about their PA programs. To reduce tangible barriers to PA program participation, increased dissemination of evidence-based programs is needed. For example, Enhance@Fitness is marketed as a low-cost program shown to reach diverse populations (Petrescu-Prahova, Eagen, Fishleder, & Belza, 2017; Sound Generations, 2018). Other evidence-based PA programs delivered in the community at a low cost include Fit & Strong! and YMCA Moving for Better Balance (National Council on Aging, 2019). Public transportation options should be improved to ensure reliable and efficient transportation to PA programs. Examples include increased volunteer driver programs and vouchers that allow older adults to access public transportation at a reduced rate (National Association of Area Agencies on Aging, 2014).

Future studies should focus on specific characteristics that could impact patient engagement during their episode of care at the physical therapy clinic and their uptake of PA referrals. The current study explored physical therapy provider and patient communication, but did not collect detailed information on characteristics such as patient demographics, length of the provider-patient relationship, or communication styles. Previous studies have shown that discordance in provider-patient characteristics can negatively impact patient care and satisfaction (Cooper-Patrick et al., 1999; Ngo-Metzger et al., 2007); thus, they are important to consider when developing interventions to increase older adult PA.

Strengths and Limitations

We limited our observations to clinics in the Seattle area; how providers and patients discuss PA, including recommendations for PA made by the provider, could differ in other settings (e.g., more rural regions with colder or warmer climates). The PTs we interviewed were sampled from outpatient, inpatient, and home health settings (vs. outpatient only for the observations); therefore, the findings between these two sources of data may not be directly comparable. Another potential limitation is our combined analysis for the three provider types we observed (PTs, PTAs, assistive personnel); each of these professionals plays a unique role in a patient's care; thus, their interactions with patients are likely

to differ. However, given our interest in understanding how patients interact with their care team, the decision was made to look at the data from a broader perspective. A strength of the study is that we collected both observation and interview data, which allowed us to triangulate findings to develop a more comprehensive understanding of physical therapy providers and their patients, and how these two groups interact and communicate.

Conclusion

Physical therapy providers provided positive reinforcement during therapy and offered advice and suggestions for PA, while patients discussed the type of PA they were engaged in and requested advice. Barriers to PA program participation among patients included low instrumental support, physical limitations, lack of motivation and confidence, and lack of knowledge about available programs. In addition to emotional and social support, physical therapy providers also served as a facilitator to participation in PA programs. These providers, in particular PTs, could help to reduce barriers associated with physical inactivity. Given that PTs perceive a responsibility to encourage PA (Fishleder et al., 2018), they may also have a particular interest in reducing these barriers among their patients. The findings from this study are likely to be relevant to similar settings and expand our understanding of how to increase older adult PA to improve health.

Authors' Note

The University of Washington Institutional Review Board approved all study protocols (IRB #48615).

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Supplemental Material

Supplemental material for this article is available online.

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