

A Primary Care Initiative to Reduce Missed Appointments Among Adult Patients

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We have no conflicts to disclose. Correspondence concerning this article should be addressed to Rashelle Pearley, (rashelle.pearley@my.lr.edu).

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Dedication and Acknowledgements

I dedicate this project to my family.

Abstract

Background: The benefits of attending a healthcare appointment include reducing the risk of disease and controlling the overall health for patients and the population. A missed patient appointment in the primary care setting can cause a delay in healthcare services and can affect the quality of care.

Objective: To determine if education on the importance of attending a primary care appointment, increased awareness of appointment rescheduling, and electronic reminders will reduce the amount of missed patient appointments.

Methods: This project reviewed the amount of missed patient appointments before and after the implementation of a system change over a five-month period. The project focused on implementing appointment reminders delivered through various communication channels, including phone calls, texts, email, and an educational brochure highlighting what to expect at future appointments and instructions on how to reschedule an appointment. A survey was administered to patients at the post clinic visit to determine how likely they were to attend their next appointment after receiving the intervention.

Results: This project demonstrated a significant reduction in the amount of missed patient appointments, after incorporating multiple methods of appointment reminders and an educational brochure highlighting the importance of attending appointments. The surveys showed that most patients were likely to attend their next appointment following the interventions.

Conclusion: A missed appointment can interfere with adequate medical care, misspend administrative and medical resources, and are associated with adverse patient health outcomes

(Davis, 2021). While efforts to address the issue of missed appointments are extensive, solutions have been identified with only limited success (Biggs et.al, 2022). This project revealed a significant difference in the amount of missed patient appointments with the intervention strategies used.

Keywords: Missed appointments, delayed care and missed appointments, reducing missed appointments, reasons for missed appointments, no call no shows, health effects of missed appointments

A primary Care Initiative to Reduce the Amount of Missed Patient Appointments Among Adult Patients

A missed appointment, also known as a “no show”, costs the United States healthcare system more than 150 billion a year (Ulah et al, 2018). Ulah et al. highlights “missed appointments causes disruption in the continuity of the provision of healthcare services, adding to the dissatisfaction of patients, due to delays in getting new appointments, and hinders the detection and treatment of diseases” (2018). In the primary care setting, it has been found that no show rates range between 15%-30% and in extreme cases have been reported to be as high as 50% (Goffman et al., 2017). Patients who frequently miss medical appointments have poorer health outcomes and are less likely to use preventive healthcare services (Crutchfield & Kistler, 2017).

When a patient misses an appointment, it not only affects the individual but the organization and other patients as well. Crutchfield & Kistler states “patients who miss appointments do not receive necessary health care services and prevent or delay other patients from being able to schedule appointments for treatment, follow up, or preventive care (2017). Missing a scheduled appointment can cause minimized access for other patients, which can create dissatisfaction among patients, healthcare providers, and suboptimal results (Marbough et al., 2020). Missed appointments are also missed opportunities for providers and health care organizations to improve health care quality by increasing the number of patients that receive preventive care and medical treatments (Crutchfield & Kistler, 2017). Some harms of patient no shows include a discontinued care process, longer wait time for appointments, and higher admission to emergency room services (Marbough et al., 2020).

Numerous research has been done to identify the reasons patients miss their medical appointments and there has been a great number of reasons identified. Ulah et al stated “one study suggested that missed appointments are likely to be influenced by three kinds of barriers that include personal, structural/organizational, and financial (2018). Research found that the most common reasons appointments are missed are due to patients forgetting appointments, difficulty cancelling appointments, inconvenient appointment times, being too ill to attend, or no longer needing appointments due to resolved health issues (Parsons, Bryce, & Atherton, 2021).

Project Aim

The purpose of this quality improvement project is to develop a multi method approach aiming to reduce the amount of missed patient appointments among adult patients in a primary care setting. This project will determine if multiple electronic appointment reminders, education on the importance of attending a primary care appointment, and increase awareness of appointment rescheduling will reduce the amount of missed appointments.

Review of Current Evidence

A comprehensive review of literature was conducted using EBSCO and Pub Med databases pertaining to missed appointments among adults and their effects on the quality of healthcare.

Reasons for missed appointments

Various studies have been done to identify patient specific reasons for missing an appointment and have influenced interventions to address the issue. Alkomos et al. (2020) used a mixed open questionnaire to identify the reasons why patients missed appointments. Results

showed that forgetting about the appointment was the common reason, followed by work-related issues. Marbough et al. (2020) found in their literature review that no shows are high due to multiple factors including patient's behaviors, financial situations, environmental factors, and scheduling policies. A small-scale study conducted by Ullah et al. (2018) on forty patients at a general practice found the main reasons patients gave for missed appointments included feeling too ill to attend, a resolution of symptoms, or a forgotten or confused appointment time. A systematic review done by Parsons, Bryce, & Atherton (2021) categorized two themes for reasons appointments were missed, these included patient centered reasons and clinic specific reasons. Patient centered reasons included work or family childcare commitments, forgetting appointments, difficulty with transportation, feeling too ill to attend, and barriers relating to weather (Parsons, Bryce & Atherton, 2021). Clinic specific reasons included not being with their preferred general practice, issues with the practice booking system, miscommunication from the practice about appointments, the day of the week, and not receiving appointment reminders (Parsons, Bryce & Atherton, 2021). Although patient specific reasons for missed appointments are numerous, it is essential to include clinic specific reasons in the research process. Studies have been conducted to understand the reasons for missed appointments and to devise interventions to address this issue. (Ullah et al, 2018).

Effects on quality of healthcare

Missed patient appointments can affect the quality of care a patient receives and can result in delayed care. Marbough et al. (2020) found that patient no shows can lead to loss of anticipated revenue, particularly in services where resources are expensive and in great demand. Missed appointments create major dilemmas for health care systems and can result in negative impacts on patient care, including scheduling and operational difficulties for clinics, diminished

productivity, reduced access to adequate health care for patients, and disrupted effective disease management (Goffman et al, 2017). Williamson et al. (2021) conducted a retrospective cohort study to determine the associations between hospital utilization and missed appointments in general practice and found that patients with higher patterns of missed appointments, experienced higher treatment burden shown by higher rates of outpatient clinic attendances and hospital admissions. Overall, the quality of care for the patient and the healthcare organization suffers when appointments are missed.

A retrospective data linkage study found that patients with four or more long term conditions were more than twice as likely to miss appointments as those with none (McQueenie et al, 2019). McQueenie et al. (2019) stated, “These patients were at significantly greater risk of all-cause mortality and showed a dose-based response with an increasing number of missed appointments”. Brewster et al. (2020) conducted a systematic review on non-attendance of diabetes outpatient appointments and discovered several significant findings. They found there was an inverse relationship between glycemic control and clinic attendance. Moreover, higher BMI was associated with non-attendance, while higher blood pressure and adverse lipid profiles were common in non-attenders. The authors also found that nonattendance was associated with higher hemoglobin A1C levels.

Appointment Reminders

Numerous appointment reminder strategies have been implemented to reduce non-attendance rates for patient appointments, and several strategies have demonstrated efficacy. Anthony et al. (2019) utilized a web-based text messaging service to remind patients of their clinic, social work, and laboratory follow up appointments over a six-month period and found a

reduced no show rate of 17.7% with an increase in clinic adherence of 7.15%. A retrospective chart review and survey done by Shahab (2019) found that introducing a telephone reminder system might be an affordable and effective first measure to address nonattendance. Specifically, a telephone reminder from staff members three days before an appointment reduced the nonattendance rate from 23.1% to 13.6%, whereas automated reminders reduced the rate to 17.3%. A randomized trial done by Shah et al. (2016) initiated targeted reminder phone calls to patients at high risk for no shows 7 days prior to their appointment and led to a 22% relative reduction in the no show rate compared to control patients. Although telephone reminders have proven to be effective, there is no single evidence to differentiate the effectiveness of how soon the reminder is issued.

There have been various studies initiating different appointment reminder times and patients preferred method of contact for reminders to determine its impact. A pilot study done by Goffman et al. (2017) and associates revealed the no show rate was the lowest for a group that received reminder calls 24 hours in advance and the highest for the group that received reminder calls 72 hours in advance. Crutchfield & Kistler (2017) found that individuals indicated a preference for a single reminder arriving via email, phone call, or text message delivered less than 2 weeks prior to an appointment. Reminding patients of appointments is a practical way of addressing the issue of missed appointments (Shahab, 2019). Shahab (2019) found most survey participants stated they would appreciate a reminder in the form of a telephone call. Health care organizations should continuously evaluate the effectiveness of appointment reminders as communication and mechanisms evolve over time (Crutchfield & Kistler, 2017).

Increasing Awareness

Educating patients and staff to increase awareness of the importance of attending healthcare appointments or rescheduling is a process needed to address the issue of missed appointments. Mehra et al. (2017) initiated a 2-phase intervention to reduce no show rates at a community health center that identified reasons for patient no shows, and addressed these reasons using reminder call verification, patient education, personal responses to patient calls, and institutional awareness; after implementation, results showed a lower no-show rate of approximately 15%. The intervention done by Mehra et al. (2017) provided weekly emails of no-show rates to its staff creating heightened awareness and direct attention toward the problem. Mehra et al. (2017) found that the patients at the community health center reported an improved understanding of communicating nonattendance and understood clearly how to cancel or reschedule an appointment either in person or by phone. A systematic review done by Brewster (2020) found one study to see a reduction in overall nonattendance rates from 15% to 4.6% after providing information packets on what to expect at an upcoming diabetes outpatient appointment. Alkomos et al. (2020) acknowledges that patients should be educated about the importance of calling to cancel the appointment since some of the reasons for no show are unpreventable (2020).

Theoretical Framework

Lewin's Force Field Analysis three phase change model was incorporated into this quality improvement project to initiate and maintain the change. Starting with the unfreezing phase, staff were educated by an in-service on how healthcare and the organization are affected by missed patient appointments. This allowed an increase in knowledge and awareness of the issue amongst staff. The driving forces of this change included the amount of patient no shows experienced at the facility and the desire of staff to provide quality patient centered care. By

highlighting the evidence-based practice and informing staff how they were involved with the change, demonstrated the unfreezing phase. This phase involved educating staff on the increased amount of patient no shows experienced, the cause and effect of short- and long-term health conditions, and strategies done in other facilities to reduce missed appointments. The driving forces of providing quality patient centered care influenced the unfreezing phase and assisted staff to be more involved with patient's adherence to attending their scheduled appointments.

The second phase involved the moving or changing phase which included moving the organization toward a new equilibrium of driving and restraining forces. At the end of the visit, healthcare providers provided attendance policies to patients and educational brochures that highlighted the importance of attending their next follow up appointment. Patients received multiple appointment reminders through the electronic health record (Athena) and were reminded of the need to reschedule in a timely manner. All the aforementioned initiatives increased patients' awareness of the importance of attending their next scheduled and follow up appointment. Patients that are seen annually and scheduled out in years' time, may forget the importance of rescheduling and are considered a restraining force for the moving phase. This behavior was prevented by the take home educational brochure provided, highlighting the importance of attending the next appointment. Another restraining force for the moving phase included unchanged patient behaviors and an increase in missed appointments. A patient centered care approach to deliver quality care influenced this restraining force. By educating patients and increasing awareness on the necessity of attending their healthcare appointments. If individuals are involved in the discussion about the change and issues surrounding the change, they are able to make their own decisions to change the behavior (White, Brown, & Terhaar, p. 60, 2021)

The refreezing phase consists of continued use of appointment reminders, highlighting the value of rescheduling appointments, and providing educational brochures about what to expect at the next visit. The refreezing phase consisted of continued use of these interventions to prevent current and future patients from having missed appointments. This refreezing phase was sustainable based on the results of the number of missed patient appointments over a five-month period.

Translational Framework

The Plan Do Study Act framework developed by Walter A Shewhart was used to carry out the design of this quality improvement project. The first category Plan involves studying a process and identifying what could improve the process with data to support it (Butts & Rich, 2018). The second category Do involves carrying out the change or activity and collecting the data (Corry et.al, 2017). The third category Study involves evaluating and modifying the changed process, and the fourth category Act involves implementing the changed process for improvements (Butts & Rich, p. 382-383, 2018). This quality improvement project exhibits the Plan Do Study categories of the framework by identifying the detrimental effects a missed patient appointment can have on the quality of healthcare. The data found helped to support the initiation of interventions to reduce the amount of missed appointments at the clinic. The interventions included appointment reminders and awareness of attending a healthcare appointment. The amount of missed patient appointments before and after the intervention were analyzed. The Act category of the framework involves continued use and improvement of the intervention.

Methods

Intervention

When evaluating the impact of patients' no-shows on service quality, it was found that patient no-shows are long standing issues that affect resource utilization, and pose risk to the quality of healthcare services, and can also affect a patient's health condition due to the delay in diagnosis and treatment (Marbough et al., 2020). The purpose of this quality improvement project is to develop a multi method approach which is aimed at reducing the number of missed appointments among adult patients in a primary care setting. This project determined if multiple electronic appointment reminders, education on the importance of attending a primary care appointment, and increased awareness of appointment rescheduling were effective at reducing the amount of missed appointments.

One intervention involved communicating with Athena, the programming interface to update appointment reminders. Athena initiated a seven- and one-day phone call reminder before the appointment, an email reminder sent three and eight days before the appointment, and a text message reminder two days prior to the appointment. The persistent use of written and verbal communication reminders were chosen for this intervention to help patients remember the date and time of the appointment. Appointment attendance is the desired goal of this intervention.

The second intervention included the use of an educational brochure provided by the nurse practitioner at the conclusion of each visit. The brochure highlighted the importance of attending healthcare appointments, what to expect at the next appointment, and instructions for rescheduling an appointment at the clinic. This intervention aimed to reduce anxiety and uncertainty that patients experience prior to their appointments, which allowed patients to be

better informed, and prepared for their next appointment. The nurse practitioner was educated on the importance of providing each patient with a brochure before leaving the facility. This intervention was chosen to educate and increase awareness of the importance of attending healthcare appointments.

The last intervention included the office manager providing patients with surveys to complete, at the end of the visit, which assess the likelihood of attending the next appointment. This intervention was chosen to assist in evaluating the effectiveness of patient education pertaining to the importance of attending healthcare appointments. This intervention can also be used to assess patients' motivation and commitment to attend their next appointment, and patient adherence.

Population

The sample population consisted of individuals over the age of eighteen who attend the primary care clinic, seeking routine checkups, preventative care, and treatment for acute or chronic illnesses. The provider within the clinic included one family nurse practitioner. Exclusion criteria included any patient under the age of eighteen years old.

Setting

This quality improvement project took place at a small urban family practice clinic located in Southeastern U.S. The clinic is a privately owned facility that aims to serve primary care needs of the community.

Data Collection

A retrospective chart review was done to assess and determine the amount of missed patient appointments experienced by the patients in the clinic five months before and five months during the intervention. The amount of missed patient appointments for each month over a ten-month period was collected using the programming interface Athena. Once this data was obtained, the information was transferred to a spreadsheet using Intellectus Statistics Software.

Data collection obtaining patients likeliness of attending the next appointment was done with surveys using a Likert scale. The surveys were administered to patients at the beginning of their visit and returned to the office manager before leaving. The individual responses were documented into a spreadsheet using Intellectus Statistics Software. Partnering included collaboration with the nurse practitioner and office manager for data collection.

Measures

This quality improvement project was conducted over a five-month period at a primary care clinic. The Mann-Whitney U test was used to analyze the data of missed patient appointments before and after the intervention. This test was chosen because the data was non-parametric, and the sample sizes were relatively small. The number of missed appointments before and after the intervention were measured to assess the effectiveness. This measure was found to be reliable with consistent results amongst the pre and post intervention months, and validity was established by use of the electronic programming interface.

Analysis

Nonparametric testing and descriptive statistics were used for the data analysis of this project. Data analysis was performed quantitatively and qualitatively. Qualitative data was

obtained from patient surveys to determine the likeliness of attending the next appointment and a descriptive statistic was used for those results. The Likert scale survey responses consisted of (1) Strongly Disagree, (2) Disagree, (3) Neither Agree nor Disagree, (4) Agree, and (5) Strongly Agree. A Mann Whitney U test was performed through the program Intellectus Statistics to quantitatively analyze and determine the significance between the amount of missed patient appointments between the group before the intervention and the group after the intervention.

Ethical Considerations

The participants of this quality improvement project were protected from harm by the avoidance of patient identifiers. The risk of harm to participants was minimized due to information being kept confidential with only clinic staff having access to the patient's protected health information.

Results

Over a ten-month period from June 2022 to March 2023, the amount of missed patient appointments were analyzed, the groups were divided into two, and consisted of five months without the intervention and five months with the intervention. A total of two hundred educational brochures were given to each patient during the intervention and each patient that attended an appointment received appointment reminders. A total of one hundred patient surveys were completed and returned to the clinic.

Missed Appointments

The most frequently observed category for missed patient appointments was the group without implementation ($n = 63, 100.00\%$). The observed category with implementation was (n

= 28, 100.00%). Frequencies and percentages of the number of missed patient appointments without intervention, with intervention, and individual months are presented in Table 1.

Table 1
Observed Frequencies

Variable	No	Yes
Implementation		
No	63 (100.00%)	0 (0.00%)
Yes	0 (0.00%)	28 (100.00%)
Total	63 (100.00%)	28 (100.00%)
Month		
June	9 (14.29%)	0 (0.00%)
July	9 (14.29%)	0 (0.00%)
Aug	11 (17.46%)	0 (0.00%)
Sep	20 (31.75%)	0 (0.00%)
Oct	14 (22.22%)	0 (0.00%)
Nov	0 (0.00%)	7 (25.00%)
Dec	0 (0.00%)	7 (25.00%)
Jan	0 (0.00%)	5 (17.86%)
Feb	0 (0.00%)	7 (25.00%)
March	0 (0.00%)	2 (7.14%)
Total	63 (100.00%)	28 (100.00%)

Note. Due to rounding error, percentages may not sum to 100%. Table 1

The result of the two-tailed Mann-Whitney U test to compare the amount of missed patient appointments before and after the intervention were significant based on an alpha value of .05, $U = 25$, $z = -2.65$, $p = .008$. This suggests that the observed differences between the before and after intervention groups are unlikely to be due to random variation. The mean rank for the group without the intervention was 8.00 and the mean rank for group with the intervention was 3.00. The median for the group without the intervention ($Mdn = 11.00$) was significantly larger than the median for the group with intervention ($Mdn = 7.00$). Table 2 presents the result of the two-tailed Mann-Whitney U test. Results examining the mean of the amount of missed appointments before and after the intervention are shown in Table 2.

Two-Tailed Mann-Whitney Test for Missed Appointments by Intervention

Variable	No		Yes		U	z	p
	Mean Rank	n	Mean Rank	n			
Missed Appointments	8.00	5	3.00	5	25.00	-2.65	.008

Note. The Mann-Whitney U test was used to compare the amount of missed patient appointments with (Yes) and without (No) intervention. The results showed a significant decrease in missed appointments with the intervention ($U = 25.00$, $z = -2.65$, $p = 0.008$)

Likeliness to Attend next appointment

Frequencies and percentages were calculated for patients’ likeness of attending their next appointment. For the patients that completed the survey, the likeliness of attending their next appointment were as follow; for the category of strongly disagree ($n = 0$, 0%), disagree ($n = 4$, 4.00%), neither agree nor disagree ($n=0$, 0%), agree ($n = 10$, 10.00%), and strongly agree ($n = 86$, 86.00%). Based on these results it is concluded that 96% of patients that completed the survey agreed that it is likely for them to attend their next appointment after the current visit.

Limitations

A barrier to success of the project aimed to reduce the number of missed patient appointments included not reaching the entire target population through use of educational brochures and patient surveys. Firstly, some patients may not have received an educational brochure, and this can prevent the awareness and understanding of the importance of attending an appointment. Secondly, not every patient completed the survey, which was intended to gather information on the effectiveness of the educational brochure.

Identify strengths to overcome the barriers

Strengths to overcome the barriers to success involve ensuring each patient receives the appropriate information pertaining to the interventions, and implementing measures to ensure each survey is completed successfully. Modifications to the intervention process were not done for this period.

Discussion

This quality improvement project aimed to reduce the number of missed patient appointments among adult patients in a primary care setting, using electronic appointment reminders, educational brochures highlighting what to expect at the next appointment, and patient awareness of rescheduling options. This project initiated the intervention over a five-month period and data was collected for missed patient appointments before and after the intervention.

This project revealed a significant reduction in the average amount of missed appointments over a five-month period. The appointment reminders were effective and displayed a decrease in the amount of missed appointments compared to the previous months without the

intervention. Although every patient may not have received a brochure, many educational brochures were distributed during the five-month period. Patient surveys showed most patients are likely to attend their next appointment, which reveals the value of educating patients on missed appointments. Overall, this project was effective in creating a system change for the clinic, allowed improvement to their appointment reminder system, and heightened awareness of appointment attendance.

One of the modifications for this project include allowing a longer time frame for implementation to allow a larger sample size of patients to be analyzed. An additional modification includes mailing the educational brochure to each patient along with distributing them in the clinic. Having two methods of distribution for the educational brochure can allow the assumption that the patient received the brochure.

Conclusion

Educating patients on the importance of attending an appointment or follow up appointments, and rescheduling appointments, if necessary, will increase patient's adherence to their care. The use of appointment reminders are shown to be effective at reminding patients to attend their appointments. The appointment reminders used through Athena's programming interface and educational brochures showed a reduction in missed appointments after the initiation of the intervention.

Being that the amount of missed patient appointments were higher before the intervention, indicates it was effective. Appointment reminders can be implemented using various time frames before the appointment, it is highly recommended that multiple reminders are used with multiple time frames in relation to the success of this project.

The approach of this project aimed to improve patient adherence to appointments and enhance overall patient outcomes. Reducing the amount of missed patient appointments allow quality of care to be maintained by detecting disease progression or improvement, and can allow recommended services to be provided in a timely manner. The results of this project were disseminated for the stakeholders and the primary care clinics staff through a poster and PowerPoint presentation.

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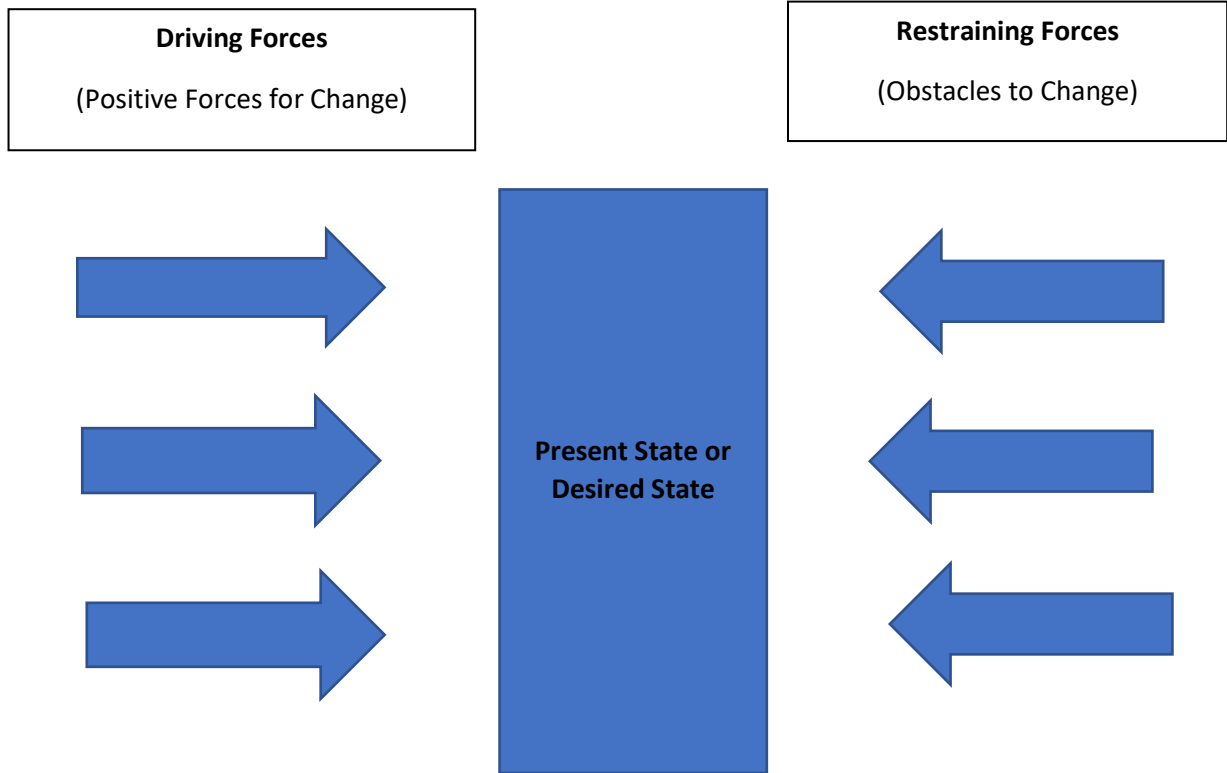
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APPENDIX A: Lewin’s Force Field Analysis Theoretical Framework

Lewin’s Force Field Analysis



APPENDIX B: Educational Brochure



Image retrieved from unsplash.com

What can a primary care provider do at checkups?

- Teach you ways to make better decisions about your health to prevent disease.
- Make sure your vaccines are up to date to prevent illnesses like the flu.
- Suggest screening tests to detect problems before you even notice them.
- Treat health problems that pop up (such as a rash or an infection).
- Help you manage long-term health problems (for instance, diabetes, high blood pressure or depression).
- Find a medical specialist if you need one (like a knee surgeon or a heart doctor).

Premium Wellness & Primary Care

Our Mission

Premium Wellness & Primary Care is committed to providing comprehensive quality healthcare that is both compassionate and affordable to those we serve.

Our vision

Our Vision is to improve the health of the communities we serve by providing a commitment to excellence in all that we do.

Rescheduling an Appointment

Please call us at (336)553-0793 by **2:00pm on the day prior** to your scheduled appointment to notify us of any changes or cancellations. **To cancel a Monday appointment, please call our office by 2:00pm on Friday.**

AHRQ. (2021). *AHRQ Health Literacy Universal Precautions Toolkit, 2nd edition*. Agency for Healthcare Research and Quality. Retrieved from <https://www.ahrq.gov/sites/default/files/wysiwyg/professionals/quality-patient-safety/quality-resources/tools/literacy-toolkit/healthlitoolkit2.pdf>

Cleveland Clinic. (2022). *The importance of having a primary care provider: Finding a PCP, health checkups*. Cleveland Clinic. Retrieved from <https://my.clevelandclinic.org/health/articles/16507-the-importance-of-having-a-primary-care-doctor>



Image retrieved from unsplash.com

**FOR YOUR
NEXT
APPOINTMENT**

**Premium Wellness & Primary
Care**

**Phone: 336-553-0793
4002 Spring Garden Street Suite C
Greensboro, NC 27404**



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It's Important that we see you next time....

Start today with scheduling your next appointment to stay in control of your health.

Not able to attend your next appointment?

See the back of this brochure for instructions on how to reschedule an appointment

At your next Annual Well Check

Here's what to expect:

- *Height and Weight Measurements*
- *Vital Sign measurements*
- *Review Personal Health Concerns*
- *Review Medical care Preferences*
- *Assess your social environment and how it affects your health*
- *Review your medication list*
- *Review Family history*
- *Have a Physical Exam*
- *Get necessary test and screenings*

Be sure to schedule your next appointment before you leave the office today.



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At your next Follow Up Appointment

Here's what to expect:

- *Routine monitoring of health*
- *Clarifying lab results*
- *Reviewing medication adherence*
- *Reinforcing knowledge and action plans*
- *Verifying follow-through on referrals*

APPENDIX C: Patient Survey

After today’s visit, please circle the answer to the following question.

I will likely attend my next in-office appointment.

1 Strongly Disagree	2 Disagree	3 Neither Agree nor Disagree	4 Agree	5 Strongly Agree
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Figure 1

Ranks of Missed Appointments by Intervention

