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Interprofessional Diabetes Clinic (IDC): Occupational Therapy for Diabetes in a Community Health Setting

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Interprofessional Diabetes Clinic (IDC): Occupational Therapy for Diabetes in a Community Health Setting

Disciplines
Occupational Therapy

Comments
During an 8-month collaboration with the Interprofessional Diabetes Clinic (IDC), occupational therapy students provided screenings, patient education, and other diabetes-related services in a community health setting. Screenings addressed vision changes, sensory loss, occupational performance problems, and other challenges to daily routines resulting from diabetes complications. OT students learned through a mix of academic research, interviews with IDC stakeholders, patient surveys, and hands-on learning in the clinic. Academic learning took place via a review of current research regarding diabetes care among low-income minority individuals, an organizational needs assessment of the IDC, and a needs assessment of the IDC’s patient population.

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Two occupational therapy (OT) graduate students, Johanka Stavenik and Colin Westerfield, under the supervision of Assistant Professor Tiffany Boggis, MBA, OTR/L, undertook a project to continue work completed by OT students from the previous year. One key contribution from the previous year was the article "How Does Latino Culture Influence Healthcare Service?" written by Johanna Wong. The article illuminated socio-cultural factors affecting IDC patients and is referenced in the attached needs assessment (Refer to Appendix A).

During an 8-month collaboration with the Interprofessional Diabetes Clinic (IDC), occupational therapy students provided screenings, patient education, and other diabetes-related services in a community health setting. Screenings addressed vision changes, sensory loss, occupational performance problems, and other challenges to daily routines resulting from diabetes complications. OT students learned through a mix of academic research, interviews with IDC stakeholders, patient surveys, and hands-on learning in the clinic. Academic learning took place via a review of current research regarding diabetes care among low-income minority individuals, an organizational needs assessment of the IDC, and a needs assessment of the IDC’s patient population.

The students met with IDC faculty from respective departments (e.g. Behavioral Health, Health Administration, Physician Assistant Services, Physical Therapy, Pharmacy, Dental, Optometry, and Occupational Therapy) to conduct the needs assessment of the clinic and of the IDC patient population. The needs assessment revealed needs for improved patient understanding of clinic functioning and of the clinic’s role in promoting individual diabetes management (Refer to Appendix B). The OT students also identified a need for further discussion of cultural competency among IDC students and staff, as well as a need for a community presentation surrounding diabetes and sleep.

To address identified needs, the OT students created an IDC pamphlet (Refer to Appendix C) and compiled a diabetes management handbook for patients (Refer to Appendix D), delivered an educational presentation on diabetes and sleep hygiene (Refer to Appendix E), and selected a cultural competency article for IDC students and staff (Refer to Appendix F). The OT students
anticipated improved patient understanding of their own role in diabetes management and the importance of the IDC in facilitating that process. OT students also hoped to increase cultural awareness and competency among Pacific University’s interdisciplinary care team to enhance communication and service delivery during patient/practitioner interactions.

In addition, OT students added educational resources from current project findings to an ongoing resource manual for future OT students at the IDC (Refer to Appendix G). The resource manual was created by Pacific University OT faculty to provide comprehensive information regarding OT’s role at the IDC. The resource manual also functioned as a bridge between graduating OT students and future OT program student cohorts.

Stavenik and Westerfield created a poster (Refer to Appendix H) on OT collaboration with the IDC for presentation at the 2014 Pacific University Research and Practice Symposium. The poster highlighted OT project implementation based on an initial needs assessment. Stavenik and Westerfield discussed poster content (e.g. project development, implementation and outcomes) with visitors to the Symposium.

Project implementation helped IDC team members develop a cohesive approach to culturally competent service delivery. Students developed a blueprint for educational resources used at IDC and achieved community outreach via Tuality Health Education Center. Stavenik and Westerfield anticipate improved patient understanding of self-management in diabetes care and the IDC’s role in that process. They hope to increase cultural competency among IDC students and faculty to enhance communication and service delivery (Refer to Appendix I).
Appendix A:

Past Graduate Work
For many years, The United States of America has been called “The Melting Pot”. This is a country who freely granted entrance to individuals from across the globe to join this society and become an active part in their own life. We allow all people the opportunity to choose the life they want to live. Many have taken this opportunity, and thus as time continues the “melting pot” is becoming a greater mix of race, religion, belief and culture. Data from the United States Census Bureau shows that from the year 2000 to 2011 the percentage of non-white Americans increased from 24.9% to 36.3%. Projections for the future indicate that by the year 2050, white-Americans will be considered the minority, accounting for only 47% of the population. By 2050, other ethnicities will become the majority at 53% of the population. Of that 53%, individuals of Latino ethnicity will account for 29% of the population, continuing to be the most rapidly increasing ethnic group in this country. So what does this mean for healthcare?

Culture is most commonly associated with ethnicity. However, culture is much more broad than merely race. Culture is defined as the customary beliefs, social forms, and marital traits of a racial, religious or social group. Culture can be related to age, gender, ethnicity, socioeconomic status, geographic location, educational background, marital and parent status, religion, physical ability, and sexual orientation. At the Pacific University Interdisciplinary Diabetes Clinic, the main focus of culture will be related to ethnicity, as the majority of the patients are of Latino culture, however, all other cultural components should always be considered as well.

As with all medical conditions in all cultures, there are psychosocial factors that may influence how an individual within that culture responds to the condition. Within the Latino culture there are a number of reasons why diabetic management is difficult to achieve successfully. The Latino culture is one that values interdependence over independence. The individual with type two diabetes is often a caretaker in the family, the worker, or parent. Within the culture, this individual will put the needs of others before his/her own, often sacrificing the effective management of the diabetes (Brown, 1997). Because the focus is on the needs of others before one’s own, Latino individuals with diabetes struggle to create personal goals related to healthy living and diabetes. Their culture does not focus on serving the self first, so they are unable to create goals that do just that (Haltiwanger, E. 2012). As a healthcare provider, it is important to help the individual find ways to balance their desire to care for others while also caring for themselves. The admittance that one has a potential inhibiting medical condition is also looked at as weakness. Many times Latinos are reluctant to disclose that they have diabetes for fear that they will be viewed as weak and unable to carryout their roles. There is a stigma that they will loose their job, or their meaningful occupations and relationships if they share that they have diabetes. By acknowledging this fear and
providing methods to manage the diabetes patients may feel more empowered to feel that they are still a strong member of their social group.

The third major psychosocial factor is related to food. Within the Latino culture, food is very important. Food is used to welcome a guest, to celebrate a birthday or event, to comfort and to show love. As in all societies, the Latino culture also has foods that are less healthy than others. The objective is to develop a knowledge base of how to make choices about those foods, not just eliminate them from the diet completely. A recent study with Latino women, showed that by educating them on portion sizes, frequency of consumption, not merely suggesting they stop eating certain foods, they felt empowered and knowledgeable to make those choices in their own lives. This allowed these individuals with diabetes to continue to participate in celebrations, be hospitable to their guests and show love to others in their community (Benavides-Vaello, S. & Brown, S., 2010).

In addition to psychosocial factors that influence diabetic management there are a number of other important factors to note. The Latino culture heavily values respect, especially respect of authority. Within the healthcare system, healthcare providers are highly respected by Latino individuals. Because of this Latino patients will often state that they understand information to be polite, they will provide the healthcare provider with the “right” answer, they will not ask questions and they will not say when a recommendation is not manageable for them. As a healthcare provider it is essential to understand these characteristics and be able to ask specific questions to ensure that the truth is being told. If the healthcare provider can obtain true responses from the patient they can then provide the most appropriate care. Finally, it is common for Latino individuals to not have the financial resources to obtain medical recommendations they are provided with. If the individual must choose between buying medication and feeding the family, that individual will always choose to care for the needs of others first. Providing inexpensive alternative options for medical equipment, medications and supplies will be beneficial for the patients, giving them the ability to care for their loved ones while still being able to meet their own medical needs. Understanding ways to provide care that is culturally appropriate is a great skill for all healthcare providers.

Cultural competency is an essential component to providing effective healthcare services as a healthcare provider. The US Department of Health and Human Services defines cultural competency as “a set of congruent behaviors, attitudes, and policies that come together in a system, agency, or among professionals that enables effective work in cross-cultural situations.” Cultural competency is also defined as “an awareness of, sensitivity to, and knowledge of the meaning of culture; including openness and willingness to learn about cultural issues while understanding one’s own values, attitudes and beliefs.” A recent study highlighted four ways that healthcare providers can develop and exhibit cultural competency in practice. By learning about the culture, applying the cultural knowledge to practice, taking time to reflect on their practice and developing family-centered partnerships with their patients, healthcare providers were able to provide much greater service and patients felt that their healthcare experience was more beneficial (Wray, E., & Mortenson, P. (2011). Another study examining the use of language
interpreters in healthcare service showed that patients more thoroughly understood the information given by their care provider, had more consistent followthrough with treatment recommendations, more effectively followed their medication management recommendations and displayed much greater personal satisfaction with the provider (Larliner, *et al.* (2007).

As a profession, occupational therapy is in a prime position to assist this population and provide effective, client centered treatment. When examining the concepts presented within the Occupational Therapy Practice Framework (OTPF), it is apparent that this profession focuses not only on the disease or condition but on the individual’s characteristics that make up the person. The “client factors” section of the OTPF speaks specifically toward three things: (1) values - principles, standards, or qualities considered worthwhile or desirable by the client who holds them, (2) beliefs - any cognitive content held as true by the client, (3) spirituality - the personal quest for understanding answers to ultimate questions about life, about meaning, and about relationship with the sacred or transcendent, which may, or may not lead to or arise from religious rituals.

Understanding that these three things are different for each person and each culture yet hold to be completely true is an essential understanding for healthcare providers to consider. A study conducted by Haltiwanger in 2012 showed that by using a client centered evaluation tool such as the Canadian Occupational Performance Measure allows patients to determine priorities and set goals, while giving the therapist the opportunity to ask relevant questions and gain a true perspective of the patient (Haltiwanger, 2012). By determining the values, beliefs and spirituality of the patient, the occupational therapist is better equipped to develop treatment that will be understood and followed by the individual of that culture.

“*By knowing the language of a culture, you know its voice. By knowing its values, you know its heart.*”

-Anonymous
References


Appendix B:

Interprofessional Diabetes Clinic Fall 2013
Needs Assessment
Inteprofessional Diabetes Clinic Fall 2013 Needs Assessment

Colin Westerfield

Pacific University, Occupational Therapy Department
Interprofessional Diabetes Clinic Fall 2013 Needs Assessment

Introduction

In 2010, Pacific University established the Interprofessional Diabetes Clinic (IDC) to assist people living with diabetes in Washington County, Oregon. The IDC was created to allow students to benefit from a multi-disciplinary learning environment and apply a coordinated approach to diabetes care. This community health model combined faculty and student run health care services in Optometry, Physician Assistant, Occupational Therapy, Physical Therapy, Dental Hygiene, Psychology, and Pharmacy. The goal of the IDC was to provide these services in a single, coordinated care environment and at a reduced cost to the health care consumer. Research has demonstrated a coordinated health care approach leads to improved patient outcomes and overall health (Timpone, 2012). As such, IDC stakeholders sought to apply this research-supported model to better serve individuals with diabetes in Washington County.

“Washington County has the largest Latino population north of Sacramento, California (Washington County Museum, 2013).” Based on national research, Latinos are 1.5 times more likely to develop diabetes than their non-Hispanic White counterparts (CDC, 2013). The IDC reflects this trend, as evidenced in a 2010 survey that found 90 percent of IDC patients identified as Latino (Timpone, 2012). Most IDC patients also live with very low socioeconomic status (SES) and have severely limited resources for diabetes care (Dr. Carole Timpone, personal communication, September, 27th, 2013).

The purpose of this needs assessment is to illuminate specific IDC needs and address those needs to improve clinic functioning and service delivery. This needs assessment also examines the importance of the IDC’s unique patient population and the needs of those patients. Clinic and patient needs will be addressed via recommendations to be implemented by the Occupational Therapy Department during the Spring semester of 2014.

Needs Assessment

To explore the needs of the IDC and its patients, two key models have been used: Bronfenbrenner’s (1994) Ecological Systems Theory and the Person-Environment-Occupation (PEO) model (Brown, 2009). Ecological Systems Theory (see Appendix A) provides insight into the layered systems affecting the IDC and its patients, while the PEO model offers an occupational therapy perspective on how person, environment, and occupation affect both IDC and patient performance.

In order to understand the IDC’s needs, the patient population must be considered first. As of 2013, diabetes represented the fifth leading cause of death and “a leading cause of heart disease, stroke, kidney disease, blindness, and amputations” among (Latino) Hispanic individuals in the U.S. (CDC, 2013). Looking at the macrosystem level, IDC patients represent a group of individuals with a similar Latino cultural heritage and values, and a shared immigrant experience. For example, in Mexican culture, a collectivist tradition suggests individuals attend to the needs of others (e.g. children, elders, other family members, etc.) before one’s own needs (Weiler and Crist, 2007). From the PEO perspective, this means Latino cultural norms (a PEO
cultural context) may not support diabetes self-care as an individual responsibility. These personal (P) factors frame how IDC patients experience their home and work environments (E) and engage in a variety of occupations (O), particularly the occupation of diabetes management.

Additional macrosystem factors contribute to diabetes health disparities in the U.S. Latino population. Low socioeconomic status (SES) forms a foundation for health disparity, to which many challenging factors are added. A 2007-2011 nationwide study concluded Latinos had twice the poverty rates of non-Hispanic Whites, with one in five Latinos living below the U.S. poverty level (U.S. Census Bureau, 2013).

Looking at Bronfenbrenner’s (1994) exosystem, the poverty rate among Washington County Latinos is around 21 percent, which mirrors the national average (Washington County, 2013). Among Latino workers in Washington County, many find employment in manual labor, and in seasonal agriculture, a part of the exosystem that is highly unstable. Those who work in Oregon’s seasonal agriculture industry experience a lack of employment benefits, frequent housing challenges, health concerns, and issues with immigration status (OPB, 2001). According to a recent Oregonian article, approximately 160,000 undocumented individuals have immigrated to Oregon (Castillo, 2013). Weiler and Crist (2007) added, among undocumented Latino immigrants “Fear of exposure and identification as undocumented, resulting in deportation, may hinder efforts to seek out health care providers (p. 30).” Though the majority of Latino immigrant workers are documented (Weiler & Crist, 2007), immigration status cannot be overlooked as a factor affecting many Latino immigrants and individuals visiting the IDC.

From the PEO perspective, IDC patients experience many barriers to occupational performance. The seasonal and manual labor occupations carry potential for work-related injuries. Their work environments are also potentially hazardous, with no health insurance coverage should an injury occur. In addition, the person factor of immigration status creates fear and uncertainty regarding residency, job status, and other concerns. Cultural contexts also factor heavily in the form of the Latino collectivist mindset. According to Bolin et al (2013), low-literacy is also common among Latino immigrant groups, which affects access to diabetes care. These multiple factors reflect the interaction of Person, Environment, and Occupation, the convergence of which is represented by occupational performance with regard to diabetes management.

With the above factors in mind, the microsystem that includes Washington County offers few diabetes care options for IDC patients. Without insurance, ongoing care can be received at reduced cost via the Virginia Garcia Clinic, the Essential Health Clinic, and the IDC. The Virginia Garcia Clinic (2013) and the Essential Health Clinic (2013) operate on weekdays only, with the Essential Health Clinic providing the fewest hours per week. Most IDC patients work schedules that prevent them from accessing the Virginia Garcia Clinic or Essential Health Clinic during available hours (C. Timpone, personal communication, September 10th, 2013). This leaves the IDC as the only weekend option for ongoing diabetes care without insurance. The IDC also provides the cheapest option at $15, though the Virginia Garcia Clinic and Essential Health Clinic offer significantly reduced costs compared to primary care or a hospital. In addition, the Essential Health Clinic closed for most of 2013, which displaced patients and created gaps in
care for many Washington County residents. Thus, the microsystem surrounding IDC patients provides some diabetes services, but these options are limited.

Those who visited the IDC seemed pleased with their experience. In a recent patient survey (see Appendix B) conducted at the IDC, all patients (3) surveyed stated they were both, “very happy” with their IDC experience and were “very likely” to return. Two of the patients had been to the IDC 5 to 10 times in the last 3 years.

In the survey, two patients indicated they had visited the Virginia Garcia Clinic recently. No patients mentioned visiting the Essential Health Clinic, though the clinic was closed for most of 2013 and opened only within the last month. Therefore, it appears patients are accessing local services when available and have enjoyed their recent IDC experiences.

Part of the success of the IDC comes from a culturally congruent approach to patients. The IDC includes one paid staff position in the form of a Patient Care Coordinator (PCC), which was modeled after the National Cancer Institute’s Patient Navigator. The PCC acts as a liaison between the patients and the health care system. This position is particularly important with patient populations that may experience greater challenges in accessing and navigating complex health care systems (Timpone, 2012).

Yemaly Alexander works as the IDC’s current PCC. She works with patients to schedule appointments and to provide follow-up communication. Though Yemaly explains the purpose and details of the IDC experience to new patients, she discovered many patients need more clarification about how the IDC works. She stated some patients leave the IDC feeling confused about how the IDC was able to help their diabetes. They often expect to see an M.D. and are unclear how the IDC relates to their diabetes care (Yemaly Alexander, personal communication, October 8th 2013). From a PEO perspective, it seems as though aspects of the IDC environment occasionally lead to frustrating patient experiences.

Dr. Bobby Nijar serves as an IDC faculty team member to provide expertise regarding dietary needs of people living with diabetes. In a recent interview, Dr. Nijar discussed several perceived patient needs at the IDC (Dr. Bobby Nijar, personal communication, October 4th, 2013). Dr. Nijar highlighted the need to bridge client-centered care with the Latino cultural emphasis on collectivism and the importance of family. Individual IDC patients are likely to look to family, support groups, and other groups when addressing diabetes care (Dr. Bobby Nijar, personal communication, October 4th, 2013). This reality ties in to the PEO model and its emphasis on cultural contexts. The IDC could benefit from linking service delivery to patients’ families and support networks to provide more culturally congruent care (Dr. Bobby Nijar, personal communication, October 4th, 2013).

In addition, Dr. Nijar acknowledged the volume of information provided to IDC patients. Most IDC patients have low literacy levels and may feel overwhelmed by a five-hour stream of health recommendations and information. Patients could benefit from consolidated information provided at an appropriate literacy level (Dr. Bobby Nijar, personal communication, October 4th, 2013).
Conclusions

Based on a review of research, interviews with stakeholders, and IDC clinical experiences, several priority needs emerged for the IDC and its patients. First, many patient needs (e.g. more supportive work environment, expanded diabetes care services/hours) cannot be addressed within the scope of the IDC. However, these needs and the factors affecting Latino immigrants with diabetes can inform faculty and students as they deliver patient care. The IDC can continue to strive for cultural competency in all areas of practice among faculty, students, and staff.

Regarding the IDC experience, patients need to have their IDC visits summarized in terms of what services were provided and how those services were relevant to their diabetes management. Since many patients feel confused about their IDC experiences, it’s important to clarify patient questions and consolidate the information provided throughout their visit. Again, IDC patients need to have this information summarized and presented in a culturally appropriate way. The Latino cultural emphasis on collectivist decision-making and family life should guide this process.

Recommendations

The following recommendations are based upon the needs assessment findings:

1. Occupational therapy should provide patients with a “home program” emphasizing diabetes management strategies. The home program could include a summary of OT (and possibly other) services provided and some general guidelines on how to incorporate the IDC experience into daily life. The home program should include brief educational materials on how to improve diabetes management from an OT perspective (and other disciplines, if applicable). For example, the home program should feature a medication reference that lists common diabetes medications (and other related medications) and their common side-effects. The home program should also be concise, as to avoid overwhelming the patient with excess information.

2. Occupational therapy should provide patients with a notebook or diary for tracking their diabetes management practices. The notebook could function as a simple “planner” to monitor blood sugar before/after meals, record A1C levels, and/or to plan diabetes-friendly meals. The notebook could also feature space to list goals and milestones (e.g. blood pressure target levels). Space could be provided to list family members, friends, and others who can support the individual in his/her diabetes self-care. This aspect would reinforce the culturally congruent idea that family/community are integral to individual functioning and decision-making.

The home program/notebook should balance appropriate literacy levels/simplicity of design with vital diabetes self-care information. In addition, these resources should be translated into Spanish. These items must be easy to use and tailored to individuals who lead busy lives.
Complicated or verbose content may dissuade individuals from using these resources and should be avoided.

3. Johanka Stavenik and Colin Westerfield will present during the Educational Session on Diabetes and Sleep at Tuality Health Education Center, March 31st, 2014 (6-7PM). This presentation will allow Johanka and Colin to offer an OT perspective on sleep and diabetes to peers and consumers in a public forum.

4. The IDC should continue to incorporate cultural competency into its clinical model. This could include requiring all students, faculty, and staff to read a paper related to the IDC patient population prior to attending the clinic. This paper should be a document similar to Johanna Wong’s (2012) article on Latinos and health care (see Appendix C) that highlights the unique experience of patients similar to those who visit the IDC.

**Action Plan:** An action plan has been developed to address needs assessment findings during Spring semester of 2014 (See Appendix D).
References


Appendix A

Ecological Theory of IDC Patients
Appendix B

Pacific University Diabetes Clinic Patient Questionnaire

1. What is your gender? Male ___ Female ___
   ¿Qué es tu género? Hombre ___ Mujer ___

2. What is your age? _____ years-old
   ¿Cuántos años tienes? _____ años de edad.

3. Have you visited the Diabetes clinic more than once? (Please check one)
   Yes___ No___
   ¿Has visitado la clínica Diabética más que una vez? (Por favor, marca uno)
   Sí___ No___

4. If you answered “Yes” to question #3, when was your last visit to the Diabetes clinic?
   Month _____ Year _____
   Si contestaste “Sí” a la respuesta #3 arriba, ¿cuándo fue tu última visita a la clínica Diabética?
   Mes _____ Año _____

5. How many times have you visited the clinic in the last 3 years? _______
   ¿Cuántas veces has visitado la clínica en los últimos 3 años? _______

6. What services did you receive at the Diabetes clinic? (Please circle all that apply)
   ¿Cuáles servicios recibiste en la clínica Diabética? (Por favor, marca cada uno que aplica)

   Physician Assistant  Dental  Occupational Therapy
   Médico Asociado  Dentista  Terapeuta Ocupacional

   Physical Therapy  Optometry  Psychology (Counseling)
   Terapista Físico  Optometría  Psicología (Consejería)

7. Are you receiving health care (other than the Diabetes Clinic) to help manage your Diabetes? (Check one) Yes___ No___
   ¿Estás recibiendo servicios de salud (aparte de la clínica Diabética) para manejar tu Diabetes? (Marca uno) Sí___ No___

8. If you answered “Yes” to question #7, where have you received Diabetes care in the last six months? (please circle all that apply)
   Si contestaste “Sí” a la pregunta #7 arriba, ¿dónde has recibido los cuidados de diabetes en las últimas seis meses? (por favor, marca cada uno que aplica)
9. On a scale of 1 to 5 (1 = “very unhappy” and 5 = “very happy”), how do you feel about your current Diabetes care routine? (Please circle your answer)

<table>
<thead>
<tr>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
</tr>
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<tbody>
<tr>
<td>Very Unhappy</td>
<td>Somewhat Unhappy</td>
<td>Neutral</td>
<td>Somewhat Happy</td>
<td>Very Happy</td>
</tr>
<tr>
<td>Muy Infeliz</td>
<td>Más o Menos Infeliz</td>
<td>Neutral</td>
<td>Más o Menos Feliz</td>
<td>Feliz</td>
</tr>
</tbody>
</table>

10. On a scale of 1 to 5 (1 = “made much worse” and 5 = “helped very much”), how did the Diabetes Clinic change your ability to manage your Diabetes?

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<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
</tr>
</thead>
<tbody>
<tr>
<td>Made Much Worse</td>
<td>Made Somewhat Worse</td>
<td>No Change</td>
<td>Helped Somewhat</td>
<td>Helped Very Much</td>
</tr>
<tr>
<td>Empeoró Mucho</td>
<td>Empeoró Más o Menos</td>
<td>No Cambió</td>
<td>Ayudó</td>
<td>Ayudó Mucho</td>
</tr>
<tr>
<td>Mucho Más o Menos</td>
<td>Más o Menos</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

11. On a scale of 1 to 5 (1 = “very poorly” and 5 = “very well”), how well did the Diabetes Clinic address your concerns about your Diabetes?

<table>
<thead>
<tr>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
</tr>
</thead>
<tbody>
<tr>
<td>Very Poorly</td>
<td>Somewhat Poorly</td>
<td>Neutral</td>
<td>Somewhat Well</td>
<td>Very Well</td>
</tr>
<tr>
<td>Muy mal</td>
<td>Más o Menos Mal</td>
<td>Neutral</td>
<td>Más o Menos Bien</td>
<td>Muy Bien</td>
</tr>
</tbody>
</table>

12. On a scale of 1 to 5 (1 = “very unhappy” and 5 = “very happy”), how would you rate your overall experience at the Diabetes Clinic?
En una escala de 1 a 5 (1 sería “muy infeliz” y 5 sería “muy feliz”), ¿cómo calificarías tu experiencia entera en la clínica Diabética?

13. On a scale of 1 to 5 (1 = “very unlikely” and 5 = “very likely”), how likely would you be to return to the Pacific University Diabetes Clinic?

14. What did you like best about the Diabetes Clinic? (Please feel free to write your response)

15. How may we improve patient experiences at the Diabetes Clinic? (Please feel free to write your response)

Thank you very much for participating in our survey and we appreciate your feedback.
Appendix C

How does Latino Culture influence Healthcare Service?
By Johanna Wong

For many years, The United States of America has been called “The Melting Pot”. This is a country who freely granted entrance to individuals from across the globe to join this society and become an active part in their own life. We allow all people the opportunity to choose the life they want to live. Many have taken this opportunity, and thus as time continues the “melting pot” is becoming a greater mix of race, religion, belief and culture. Data from the United States Census Bureau shows that from the year 2000 to 2011 the percentage of non-white Americans increased from 24.9% to 36.3%. Projections for the future indicate that by the year 2050, white-Americans will be considered the minority, accounting for only 47% of the population. By 2050, other ethnicities will become the majority at 53% of the population. Of that 53%, individuals of Latino ethnicity will account for 29% of the population, continuing to be the most rapidly increasing ethnic group in this country. So what does this mean for healthcare?

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The third major psychosocial factor is related to food. Within the Latino culture, food is very important. Food is used to welcome a guest, to celebrate a birthday or event, to comfort and to
show love. As in all societies, the Latino culture also has foods that are less healthy than others. The objective is to develop a knowledge base of how to make choices about those foods, not just eliminate them from the diet completely. A recent study with Latino women, showed that by educating them on portion sizes, frequency of consumption, not merely suggesting they stop eating certain foods, they felt empowered and knowledgeable to make those choices in their own lives. This allowed these individuals with diabetes to continue to participate in celebrations, be hospitable to their guests and show love to others in their community (Benavides-Vaello, S. & Brown, S., 2010).

In addition to psychosocial factors that influence diabetic management there are a number of other important factors to note. The Latino culture heavily values respect, especially respect of authority. Within the healthcare system, healthcare providers are highly respected by Latino individuals. Because of this Latino patients will often state that they understand information to be polite, they will provide the healthcare provider with the “right” answer, they will not ask questions and they will not say when a recommendation is not manageable for them. As a healthcare provider is it essential to understand these characteristics and be able to ask specific questions to ensure that the truth is being told. If the healthcare provider can obtain true responses from the patient they can then provide the most appropriate care. Finally, it is common for Latino individuals to not have the financial resources to obtain medical recommendations they are provided with. If the individual must choose between buying medication and feeding the family, that individual will always choose to care for the needs of others first. Providing inexpensive alternative options for medical equipment, medications and supplies will be beneficial for the patients, giving them the ability to care for their loved ones while still being able to meet their own medical needs. Understanding ways to provide care that is culturally appropriate is a great skill for all healthcare providers.

Cultural competency is an essential component to providing effective healthcare services as a healthcare provider. The US Department of Health and Human Services defines cultural competency as “a set of congruent behaviors, attitudes, and policies that come together in a system, agency, or among professionals that enables effective work in cross-cultural situations.” Cultural competency is also defined as “an awareness of, sensitivity to, and knowledge of the meaning of culture; including openness and willingness to learn about cultural issues while understanding one’s own values, attitudes and beliefs.” A recent study highlighted four ways that healthcare providers can develop and exhibit cultural competency in practice. By learning about the culture, applying the cultural knowledge to practice, taking time to reflect on their practice and developing family-centered partnerships with their patients, healthcare providers were able to provide much greater service and patients felt that their healthcare experience was more beneficial (Wray, E., & Mortenson, P. (2011). Another study examining the use of language interpreters in healthcare service showed that patients more thoroughly understood the information given by their care provider, had more consistent followthrough with treatment recommendations, more effectively followed their medication management recommendations and displayed much greater personal satisfaction with the provider (Larliner, et al. (2007).

As a profession, occupational therapy is in a prime position to assist this population and provide effective, client centered treatment. When examining the concepts presented within the Occupational Therapy Practice Framework (OTPF), it is apparent that this profession focuses not
only on the disease or condition but on the individual’s characteristics that make up the person. The “client factors” section of the OTPF speaks specifically toward three things: (1) values - principles, standards, or qualities considered worthwhile or desirable by the client who holds them, (2) beliefs - any cognitive content held as true by the client, (3) spirituality - the personal quest for understanding answers to ultimate questions about life, about meaning, and about relationship with the sacred or transcendent, which may, or may not lead to or arise from religious rituals. Understanding that these three things are different for each person and each culture yet hold to be completely true is an essential understanding for healthcare providers to consider. A study conducted by Haltiwanger in 2012 showed that by using a client centered evaluation tool such as the Canadian Occupational Performance Measure allows patients to determine priorities and set goals, while giving the therapist the opportunity to ask relevant questions and gain a true perspective of the patient (Haltiwanger, 2012). By determining the values, beliefs and spirituality of the patient, the occupational therapist is better equipped to develop treatment that will be understood and followed by the individual of that culture.

“By knowing the language of a culture, you know its voice. By knowing its values, you know its heart.”

-Anonymous

References


## Appendix D

### Needs Assessment Action Plan

<table>
<thead>
<tr>
<th>Action</th>
<th>Strategy</th>
<th>Timeline</th>
</tr>
</thead>
<tbody>
<tr>
<td>Design occupational therapy home program for IDC patients.</td>
<td>Collect and consolidate OT related IDC educational materials from Tiffany Boggis (or Tori Eaton). Consult Tiffany regarding additional content to be included.</td>
<td>Meet with Tiffany by the second week of January to collect educational materials and design home program.</td>
</tr>
<tr>
<td>Create home program for IDC patients.</td>
<td>Assemble materials into a consolidated document to be distributed to IDC patients.</td>
<td>Create home program by two weeks prior to February IDC session.</td>
</tr>
<tr>
<td>Translate home program into Spanish.</td>
<td>Contact translator and arrange for IDC home program to be translated into Spanish.</td>
<td>Submit home program to translator by two weeks prior to February IDC session.</td>
</tr>
<tr>
<td>Distribute cultural competency article to IDC students.</td>
<td>Colin and Johanka will obtain permission to include a cultural competency article (e.g. Wong article in Appendix C) on the IDC Moodle site.</td>
<td>Colin and Johanka will obtain permission to upload a cultural competency article by the February IDC session.</td>
</tr>
<tr>
<td>Create medication list for home program.</td>
<td>Interview pharmacy faculty and conduct internet research to determine common diabetes medications and medications for commonly related symptoms (e.g. high blood). Determine side effects for these medications and how they may affect occupational performance areas.</td>
<td>Conduct internet research and email pharmacy faculty member during first week of Spring semester. Conduct interview (or email correspondence) to obtain information by end of second week of semester.</td>
</tr>
<tr>
<td>Decide on IDC patient notebook contents.</td>
<td>Colin and Johanka will meet to create a list of items to include in IDC patient notebook. This notebook could include a medication list, food diary/log, information on food choices and so on.</td>
<td>Meet to discuss notebook contents by 2nd week of Spring semester.</td>
</tr>
<tr>
<td>Task</td>
<td>Details</td>
<td>Deadline</td>
</tr>
<tr>
<td>----------------------------------------------------------------------</td>
<td>--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------</td>
<td>--------------------------------------------------------------------------</td>
</tr>
<tr>
<td>Translate patient notebook into Spanish.</td>
<td>Contact translator and arrange for IDC patient notebook to be translated to Spanish.</td>
<td>Submit patient notebook by three weeks prior to March IDC session.</td>
</tr>
<tr>
<td>Create IDC patient notebook.</td>
<td>Print and assemble Spanish language IDC patient notebook.</td>
<td>Deliver finished notebook(s) by March IDC session.</td>
</tr>
<tr>
<td>Create exit survey for IDC patients</td>
<td>Colin and Johanka will develop survey questions for patients who have received a home program and notebook. These surveys will gauge the frequency and quality of home program/notebook use.</td>
<td>Exit surveys will be completed and translated by one week prior to the April IDC session.</td>
</tr>
<tr>
<td>Prepare for Educational Session on Diabetes and Sleep</td>
<td>Colin and Johanka will meet to brainstorm content and format for presentation on Diabetes and Sleep</td>
<td>Colin and Johanka will meet no later than February 28th to begin preparing for presentation.</td>
</tr>
<tr>
<td>Deliver Educational Session on Diabetes and Sleep</td>
<td>Colin and Johanka will deliver presentation on Diabetes and Sleep at Tuality Health Education Center</td>
<td>Presentation will be delivered on March 31st, 2014 from 6-7PM.</td>
</tr>
</tbody>
</table>
Appendix C:

Informational Pamphlet for IDC Consumers in English and Spanish
What is the Interprofessional Diabetes Clinic all about?

The Pacific University Interprofessional Diabetes Clinic (IDC) is open one Saturday per month, from 8:30 AM to 12 PM. As a partner with the Virginia Garcia Clinic, the IDC offers low-cost, bilingual, screening and prevention services to help people manage their diabetes.

IDC services are designed to help you understand how diabetes affects you and how to take control of your diabetes. It is important that you eat breakfast and take your regular medications on the day of your IDC appointment, please do not be fasting.

This patient handbook contains information about your IDC visit. Several handouts are included with tips on how to control diabetes. The handbook also features a list of diabetes medications and a schedule for planning meals, exercise, doctor visits and future IDC visits.

Diabetes can be managed with diet, exercise, medications, and lifestyle changes. Managing diabetes is also a team effort. The IDC, Virginia Garcia Clinic, doctors, and other health professionals can provide evaluations, recommendations, and referrals on how to control diabetes. Family members, friends, and others can support and encourage individuals to make diabetes management a part of daily life.

### Health Services

- Physicians Assistants
- Optometry
- Dental Hygiene
- Pharmacy
- Occupational Therapy
- Physical Therapy
- Clinical Psychology
What does each of the health professions provide?

**Physician Assistant**
Physician assistants (PA) are health providers who work under the delegation of doctors. They ask patients about medical history, provide physical exams, diagnose and treat illnesses, prescribe medication and counsel on preventing illnesses.

**Optometry**
Optometrists (OPT) examine, diagnose and treat diseases, injuries, and disorders of the eye. They prescribe medications, glasses, and contacts. They also educate patients about proper eye care and good nutrition.

**Dental Hygiene**
Dental hygienists (DH) focus on preventing and treating mouth diseases. Dental hygienists ask patients about their health history and evaluate tooth/gum health and disease. They use dental equipment to clean the teeth and apply fillings and sealants to keep teeth healthy. Dental hygienists also educate patients on good oral hygiene and proper nutrition.

**Pharmacy**
Pharmacists educate patients about medications and any possible side effects. It is important to know why a medication is taken, how to properly use it.

**Occupational Therapy**
Occupational therapists (OTs) help people participate in activities that they find meaningful. Examples of activities include: work, childcare, home maintenance, free-time activities, and social events. OTs ask patients about routines, responsibilities, and goals. OTs also screen for sensation changes in the hands/feet and provide patient education.

**Physical Therapy**
Physical therapists (PTs) examine patients for physical limitations and develop a plan to achieve physical function and mobility. PTs use treatment techniques/methods to promote mobility, reduce pain, restore function, and prevent disability. Additionally, PTs work with individuals to prevent loss of mobility, develop fitness/wellness programs, and promote healthier/more active lifestyles.

**Mental Health**
Counselors help people learn to cope with physical, mental, and emotional challenges. They assess, diagnose, and treat problems such as depression, anxiety, stress, isolation, relationship issues, and challenges with time management. You will be asked questions about how you are managing your diabetes and if there are things in your life making this difficult. You are can share as much or as little as you are comfortable sharing. The purpose of this meeting is to determine if there are other resources that might be helpful in managing diabetes.
La Clínica de Diabetes Interprofesional Universidad del Pacífico (IDC) está abierto el sábado al mes, de 8:30 AM a 12 PM. Como un socio de la Clínica García Virginia, el IDC ofrece servicios bilingües de bajo costo para ayudar a las personas a manejar su diabetes. Estos servicios son principalmente para la detección y la prevención.

Servicios de IDC están diseñados para ayudarle a entender cómo le afecta la diabetes y cómo tomar control de su diabetes. Es importante que usted come el desayuno y tomar los medicamentos habituales en el día de su cita IDC, por favor no estar en ayunas.

Este manual de paciente contiene información sobre su visita IDC. Varios folletos están incluidos con consejos sobre cómo controlar la diabetes. El manual también incluye una lista de los medicamentos para la diabetes y un calendario para planificar las comidas, el ejercicio, las visitas al médico y las futuras visitas de IDC.

La diabetes se puede controlar con dieta, ejercicio, medicamentos y cambios de estilo de vida. Controlar la diabetes es también un esfuerzo de equipo. La IDC, Virginia Clínica García, los médicos y otros profesionales de la salud pueden proporcionar evaluaciones, recomendaciones y referencias sobre cómo controlar la diabetes. Los familiares, amigos y otras personas pueden apoyar y alentar a las personas a tomar control de la diabetes en una parte de la
Que ofrecen las profesiones de la salud?

**Asociados Médicos**
Los asistentes médicos son los proveedores de salud que trabajan bajo la delegación de médicos. Piden a los pacientes acerca de la historia clínica, proporcionar exámenes físicos, diagnosticar y tratar las enfermedades, recetar medicamentos y consejos sobre la prevención de enfermedades.

**Oculistas**
Optometristas examinar, diagnosticar y tratar las enfermedades, lesiones y trastornos de los ojos. Se recetan medicamentos, gafas y contactos. También educar a los pacientes sobre el cuidado adecuado de los ojos y una buena nutrición.

**Higiene Dental**
Los higienistas dentales se centran en la prevención y tratamiento de enfermedades de la boca. Los higienistas dentales preguntan a los pacientes acerca de su historial de salud y evaluar la salud de los dientes/encías y la enfermedad. Usan equipo dental para limpiar los dientes y aplicar rellenos y selladores para mantener los dientes sanos. Higienistas dentales también educar a los pacientes sobre la buena higiene bucal y una nutrición adecuada.

**Farmacia**
Los farmacéuticos educar a los pacientes acerca de los medicamentos y los posibles efectos secundarios. Es importante saber por qué se toma la medicación, cómo utilizarlo correctamente.

**Terapia Ocupacional**
La terapia ocupacional ayuda a las personas que participen en actividades que les resultan significativos. Algunos ejemplos de actividades son: el trabajo, el cuidado de niños, el mantenimiento del hogar, actividades de tiempo libre, y eventos sociales. Los terapeutas ocupacionales piden a los pacientes acerca de las rutinas, responsabilidades y objetivos. Los terapeutas ocupacionales también la pantalla para cambios en la sensibilidad en las manos/pies y proporcionar educación al paciente.

**Terapia Física**
Los fisioterapeutas examinar a los pacientes de las limitaciones físicas y desarrollar un plan para lograr la función física y la movilidad. PT utilizar técnicas de tratamiento/métodos para promover la movilidad, reducir el dolor, restaurar la función y prevenir la discapacidad. Además, los PT trabajar con las personas para evitar la pérdida de la movilidad, el desarrollo de programas de bienestar, y promover estilos de vida más saludables/más activos.

**Cuidado de la salud mental**
Los consejeros ayudan a la gente a aprender a hacer frente a los desafíos físicos, mentales y emocionales. Ellos evalúan, diagnostican y tratan los problemas como la depresión, la ansiedad, el estrés, el aislamiento, problemas de relación, y los desafíos con la gestión del tiempo. Se le harán preguntas acerca de cómo se está manejando su diabetes y si hay cosas en tu vida haciendo esto difícil. Usted puede compartir tanto o tan poco como usted es cómodo compartiendo. El propósito de esta reunión es determinar si hay otros recursos que pueden ser útiles en el manejo de la diabetes.
Appendix D:

Diabetes Management Patient Handbook
4 Steps to Manage Your Diabetes for Life

A program of the National Institutes of Health and the Centers for Disease Control and Prevention

NDEP National Diabetes Education Program
A program of the National Institutes of Health and the Centers for Disease Control and Prevention
This booklet gives four key steps to help you manage your diabetes and live a long and active life.

Contents

Step 1: Learn about diabetes ........................................... 1
Step 2: Know your diabetes ABCs ................................. 5
Step 3: Learn how to live with diabetes .......................... 8
Step 4: Get routine care to stay healthy ......................... 11
Things to remember .................................................... 12
My Diabetes Care Record ............................................. 13
To learn more ................................................................ Inside Back Cover
The marks ✓ in this booklet show actions you can take to manage your diabetes.

✓ Help your health care team make a diabetes care plan that will work for you.

✓ Learn to make wise choices for your diabetes care each day.

STEP 1:
Learn about diabetes.

What is diabetes?

There are three main types of diabetes:

- **Type 1 diabetes** – Your body does not make insulin. This is a problem because you need insulin to take the sugar (glucose) from the foods you eat and turn it into energy for your body. You need to take insulin every day to live.

- **Type 2 diabetes** – Your body does not make or use insulin well. You may need to take pills or insulin to help control your diabetes. Type 2 is the most common type of diabetes.

- **Gestational (jest-TAY-shun-al) diabetes** – Some women get this kind of diabetes when they are pregnant. Most of the time, it goes away after the baby is born. But even if it goes away, these women and their children have a greater chance of getting diabetes later in life.
You are the most important member of your health care team.

You are the one who manages your diabetes day by day. Talk to your doctor about how you can best care for your diabetes to stay healthy. Some others who can help are:

- dentist
- diabetes doctor
- diabetes educator
- dietitian
- eye doctor
- foot doctor
- friends and family
- mental health counselor
- nurse
- nurse practitioner
- pharmacist
- social worker
How to learn more about diabetes.

- Take classes to learn more about living with diabetes. To find a class, check with your health care team, hospital, or area health clinic. You can also search online.
- Join a support group — in-person or online — to get peer support with managing your diabetes.

Take diabetes seriously.

You may have heard people say they have “a touch of diabetes” or that their “sugar is a little high.” These words suggest that diabetes is not a serious disease. That is not correct. Diabetes is serious, but you can learn to manage it.

People with diabetes need to make healthy food choices, stay at a healthy weight, move more every day, and take their medicine even when they feel good. It’s a lot to do. It’s not easy, but it’s worth it!
Why take care of your diabetes?

Taking care of yourself and your diabetes can help you feel good today and in the future. When your blood sugar (glucose) is close to normal, you are likely to:

- have more energy
- be less tired and thirsty
- need to pass urine less often
- heal better
- have fewer skin or bladder infections

You will also have less chance of having health problems caused by diabetes such as:

- heart attack or stroke
- eye problems that can lead to trouble seeing or going blind
- pain, tingling, or numbness in your hands and feet, also called nerve damage
- kidney problems that can cause your kidneys to stop working
- teeth and gum problems

Actions you can take

✓ Ask your health care team what type of diabetes you have.

✓ Learn where you can go for support.

✓ Learn how caring for your diabetes helps you feel good today and in the future.
STEP 2: 
Know your diabetes ABCs.

Talk to your health care team about how to manage your A1C, Blood pressure, and Cholesterol. This can help lower your chances of having a heart attack, stroke, or other diabetes problems.

A for the A1C test (A-one-C).

What is it?
The A1C is a blood test that measures your average blood sugar level over the past three months. It is different from the blood sugar checks you do each day.

Why is it important?
You need to know your blood sugar levels over time. You don’t want those numbers to get too high. High levels of blood sugar can hurt your heart and blood vessels, kidneys, feet, and eyes.

What is the A1C goal?
The A1C goal for many people with diabetes is below 7. Ask what your goal should be.
B for Blood pressure.

What is it?
Blood pressure is the force of your blood against the wall of your blood vessels.

Why is it important?
If your blood pressure gets too high, it makes your heart work too hard. It can cause a heart attack, stroke, and kidney disease.

What is the blood pressure goal?
Your blood pressure goal should be below 140/80 unless your doctor helps you set a different goal.
C for Cholesterol (ko-LESS-tuh-ruhl).

What is it?
There are two kinds of cholesterol in your blood: LDL and HDL. LDL or “bad” cholesterol can build up and clog your blood vessels. It can cause a heart attack or stroke. HDL or “good” cholesterol helps remove the “bad” cholesterol from your blood vessels.

What are the LDL and HDL goals for people with diabetes?
Ask what your cholesterol numbers should be. If you are over 40 years of age, you may need to take a statin drug for heart health.

Actions you can take

✓ Ask your health care team:
  • what your A1C, blood pressure, and cholesterol numbers are and what they should be. Your ABC goals will depend on how long you have had diabetes, other health problems, and how hard your diabetes is to manage.
  • what you can do to reach your ABC goals
✓ Write down your numbers on the record at the back of this booklet to track your progress.
STEP 3: Learn how to live with diabetes.

It is common to feel overwhelmed, sad, or angry when you are living with diabetes. You may know the steps you should take to stay healthy, but have trouble sticking with your plan over time. This section has tips on how to cope with your diabetes, eat well, and be active.

Cope with your diabetes.

- Stress can raise your blood sugar. Learn ways to lower your stress. Try deep breathing, gardening, taking a walk, meditating, working on your hobby, or listening to your favorite music.
- Ask for help if you feel down. A mental health counselor, support group, member of the clergy, friend, or family member who will listen to your concerns may help you feel better.

Eat well.

- Make a diabetes meal plan with help from your health care team.
- Choose foods that are lower in calories, saturated fat, trans fat, sugar, and salt.
- Eat foods with more fiber, such as whole grain cereals, breads, crackers, rice, or pasta.
- Choose foods such as fruits, vegetables, whole grains, bread and cereals, and low-fat or skim milk and cheese.
- Drink water instead of juice and regular soda.
Portion size matters.

- When eating a meal, fill half of your plate with fruits and vegetables, one quarter with a lean protein, such as beans, or chicken or turkey without the skin, and one quarter with a whole grain, such as brown rice or whole wheat pasta.

Be active.

- Set a goal to be more active most days of the week. Start slow by taking 10 minute walks, 3 times a day.
- Twice a week, work to increase your muscle strength. Use stretch bands, do yoga, heavy gardening (digging and planting with tools), or try push-ups.
- Stay at a healthy weight by using your meal plan and moving more.

Know what to do every day.

- Take your medicines for diabetes and any other health problems even when you feel good. Ask your doctor if you need aspirin to prevent a heart attack or stroke. Tell your doctor if you cannot afford your medicines or if you have any side effects.
• Check your feet every day for cuts, blisters, red spots, and swelling. Call your health care team right away about any sores that do not go away.
• Brush your teeth and floss every day to keep your mouth, teeth, and gums healthy.
• Stop smoking. Ask for help to quit. Call 1-800-QUITNOW (1-800-784-8669).
• Keep track of your blood sugar. You may want to check it one or more times a day. Use the card at the back of this booklet to keep a record of your blood sugar numbers. Be sure to talk about it with your health care team.
• Check your blood pressure if your doctor advises and keep a record of it.

Talk to your health care team.
• Ask your doctor if you have any questions about your diabetes.
• Report any changes in your health.

Actions you can take

✔ Ask for a healthy meal plan.
✔ Ask about ways to be more active.
✔ Ask how and when to test your blood sugar and how to use the results to manage your diabetes.
✔ Use these tips to help with your self-care.
✔ Discuss how your diabetes plan is working for you each time you visit your health care team.
STEP 4: Get routine care to stay healthy.

See your health care team at least twice a year to find and treat any problems early.

At each visit, be sure you have a:

- blood pressure check
- foot check
- weight check
- review of your self-care plan

Two times each year, have an:

- A1C test. It may be checked more often if it is over 7.

Once each year, be sure you have a:

- cholesterol test
- complete foot exam
- dental exam to check teeth and gums
- dilated eye exam to check for eye problems
- flu shot
- urine and a blood test to check for kidney problems

At least once in your lifetime, get a:

- pneumonia (nu-mo-nya) shot
- hepatitis B (HEP-uh-TY-tiss) shot
Medicare and diabetes.
If you have Medicare, check to see how your plan covers diabetes care. Medicare covers some of the costs for:

- diabetes education
- diabetes supplies
- diabetes medicine
- visits with a dietitian
- special shoes, if you need them

✅ Actions you can take

- Ask your health care team about these and other tests you may need. Ask what your results mean.
- Write down the date and time of your next visit.
- Use the card at the back of this booklet to keep a record of your diabetes care.
- If you have Medicare, check your plan.

Things to Remember:

- You are the most important member of your health care team.
- Follow the four steps in this booklet to help you learn how to manage your diabetes.
- Learn how to reach your diabetes ABC goals.
- Ask your health care team for help.
# My Diabetes Care Record

## How to use the record.

First read the shaded bar across the page. This tells you:

- the name of the test or check-up
- how often to get the test or check-up
- what your personal goal is (for A1C, blood pressure, and cholesterol)

Then, write down the date and results for each test or check-up you get. Take this card with you on your health care visits. Show it to your health care team. Talk about your goals and how you are doing.

<table>
<thead>
<tr>
<th>Test/Check-Up</th>
<th>Frequency</th>
<th>Goal</th>
</tr>
</thead>
<tbody>
<tr>
<td>A1C – At least twice each year</td>
<td></td>
<td><strong>My goal:</strong></td>
</tr>
<tr>
<td>Date</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Result</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Blood Pressure (BP) – At each visit</td>
<td></td>
<td><strong>My goal:</strong></td>
</tr>
<tr>
<td>Date</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Result</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cholesterol – Once each year</td>
<td></td>
<td><strong>My goal:</strong></td>
</tr>
<tr>
<td>Date</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Result</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
# My Diabetes Care Record

## How to use the record.

Use this page to write down the date and results of each test, exam, or shot.

### Each Visit

<table>
<thead>
<tr>
<th>Date</th>
<th>Result</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td>Foot check</td>
<td></td>
</tr>
<tr>
<td>Review self-care plan</td>
<td></td>
</tr>
<tr>
<td>Weight check</td>
<td></td>
</tr>
<tr>
<td>Review medicines</td>
<td></td>
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</tbody>
</table>

### Once a Year

<table>
<thead>
<tr>
<th>Date</th>
<th>Result</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td>Dental exam</td>
<td></td>
</tr>
<tr>
<td>Dilated eye exam</td>
<td></td>
</tr>
<tr>
<td>Complete foot exam</td>
<td></td>
</tr>
<tr>
<td>Flu shot</td>
<td></td>
</tr>
<tr>
<td>Kidney check</td>
<td></td>
</tr>
</tbody>
</table>

### At least Once

<table>
<thead>
<tr>
<th>Date</th>
<th>Result</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td>Pneumonia shot</td>
<td></td>
</tr>
<tr>
<td>Hepatitis B shot</td>
<td></td>
</tr>
</tbody>
</table>
Self Checks of Blood Sugar

How to use this card.

This card has three sections. Each section tells you when to check your blood sugar: before each meal, 1 to 2 hours after each meal, and at bedtime. Each time you check your blood sugar, write down the date, time, and results. Take this card with you on your health care visits. Show it to your health care team. Talk about your goals and how you are doing.

<table>
<thead>
<tr>
<th>Date</th>
<th>Time</th>
<th>Result</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>My blood sugar before meals:</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Usual goal</td>
<td>70 to 130</td>
<td>My goal:</td>
</tr>
<tr>
<td><strong>My blood sugar 1–2 hours after meals:</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Usual goal</td>
<td>below 180</td>
<td>My goal:</td>
</tr>
<tr>
<td><strong>My blood sugar at bedtime:</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Usual goal</td>
<td>110 to 150</td>
<td>My goal:</td>
</tr>
</tbody>
</table>
To learn more:

**National Diabetes Education Program**
1-888-693-NDEP (1-888-693-6337)
www.YourDiabetesInfo.org

**Diabetes HealthSense:**
An online library of resources for living well.
www.YourDiabetesInfo.org/HealthSense

**Academy of Nutrition and Dietetics**
1-800-877-1600
www.eatright.org

**American Association of Diabetes Educators**
1-800-338-3633
www.diabeteseducator.org

**American Diabetes Association**
1-800-DIABETES (1-800-342-2383)
www.diabetes.org

**American Heart Association**
1-800-AHA-USA1 (1-800-242-8721)
www.americanheart.org

**Centers for Disease Control and Prevention**
1-800-CDC-INF0 (1-800-232-4636)
www.cdc.gov/diabetes

**Centers for Medicare & Medicaid Services**
1-800-MEDICARE (1-800-633-4227)
www.medicare.gov

**JDRF**
1-800-533-CURE (1-800-533-2873)
www.jdrf.org

**National Institute of Diabetes and Digestive and Kidney Diseases**
National Diabetes Information Clearinghouse
1-800-860-8747
www.diabetes.niddk.nih.gov

**National Kidney Disease Education Program**
1-866-4-KIDNEY (1-866-454-3639)
www.nkdep.nih.gov
By joining a research study, people can help improve their health and the health of others. See www.clinicaltrials.gov and www.cdc.gov/diabetes/projects/index.htm.
4 pasos para controlar la diabetes de por vida
Este folleto le ofrece cuatro pasos clave para ayudarle a controlar su diabetes y vivir una vida larga y activa.

Índice

Paso 1: Aprenda sobre la diabetes 1
Paso 2: Conozca los factores clave de la diabetes 5
Paso 3: Aprenda a vivir con la diabetes 8
Paso 4: Obtenga los cuidados médicos de rutina para mantenese sano 11
Cosas que debe recordar 12
Registro de mis cuidados para la diabetes 13
Información adicional Contraportada interior
Medidas Que Usted Puede Tomar

Los en este folleto muestran las medidas que usted puede tomar para controlar su diabetes.

Colabore con su equipo de cuidados de la salud para hacer un plan de cuidados de la diabetes que sea adecuado para usted.

Aprenda a tomar buenas decisiones todos los días para un buen cuidado su diabetes.

PASO 1: Aprenda sobre la diabetes.

¿Qué es la diabetes?

Hay tres tipos principales de diabetes:

- **Diabetes tipo 1** – Con este tipo de diabetes, el cuerpo no produce insulina. Esto es un problema porque el cuerpo necesita insulina para sacar el azúcar (glucosa) de los alimentos que la persona consume para convertirla en energía. Las personas que tienen diabetes tipo 1 deben tomar insulina todos los días para vivir.

- **Diabetes tipo 2** – Con este tipo de diabetes, el cuerpo no produce o no usa bien la insulina. Las personas con este tipo de diabetes tal vez necesiten tomar pastillas o insulina para ayudar a controlar la diabetes. La diabetes tipo 2 es la forma más común de diabetes.

- **Diabetes gestacional** – Este tipo de diabetes ocurre en algunas mujeres cuando están embarazadas. La mayoría de las veces, desaparece después de que nace el bebé. Sin embargo, aun si desaparece, estas mujeres y sus hijos corren un mayor riesgo de desarrollar diabetes más adelante.
Usted es el miembro más importante de su equipo de cuidados de la salud.

Usted es quien controla su diabetes día a día. Hable con su médico acerca de cuál es la mejor forma de cuidarse la diabetes para permanecer sano. Otras personas que pueden ayudarle son:

- dentistas
- médicos especializados en diabetes
- educadores en diabetes
- dietistas o nutricionistas
- oftalmólogos (médicos especializados en los ojos)
- podiatras (médicos especializados en los pies)
- amigos y familiares
- consejeros de salud mental
- enfermeras
- enfermeros especializados
- farmacéuticos
- trabajadores sociales
Cómo aprender más acerca de la diabetes.

- Tome clases para aprender más acerca de cómo vivir con la diabetes. Para encontrar una clase, consulte con su equipo de cuidados de la salud o pregunte en el hospital o en la clínica de la zona. También puede buscar por Internet.
- Únase a un grupo de apoyo, en persona o en el Internet, para recibir apoyo en el control de su diabetes de otras personas que tienen la enfermedad.
- Lea los artículos sobre diabetes que aparecen en el Internet. Vaya a www.diabetesinformacion.org.

Tome su diabetes en serio.

Tal vez haya oído a algunas personas decir que tienen “un poquito de diabetes” o que tienen “el azúcar un poco alta”. Escuchar estas palabras nos puede hacer creer que la diabetes no es una enfermedad grave. Esto no es cierto. La diabetes es grave, pero usted puede aprender a controlarla.

Las personas con diabetes tienen que aprender a comer alimentos saludables, mantenerse en un peso saludable, hacer más actividad física todos los días y tomar sus medicamentos aun cuando se sientan bien. Hay mucho que hacer. No es fácil, pero vale la pena hacerlo!
¿Por qué cuidar de la diabetes?

Si se cuida y controla bien su diabetes, puede sentirse mejor tanto hoy como en el futuro. Cuando su nivel de azúcar en la sangre está casi en el nivel normal, es probable que usted:

- tenga más energía
- se sienta menos cansado y tenga menos sed
- orine con menos frecuencia
- sane mejor
- tenga menos infecciones en la piel o en la vejiga

También tendrá menos probabilidad de sufrir problemas de salud causados por la diabetes, como:

- un ataque al corazón o al cerebro
- enfermedades de los ojos que pueden hacer que usted tenga problemas de la vista o incluso se quede ciego
- daño a los nervios que haga que las manos y los pies le duelen o se sientan adormecidos o con hormigueo
- problemas de los riñones que pueden hacer que le dejen de funcionar
- problemas con los dientes y las encías

**Medidas Que Usted Puede Tomar**

- Pregúntele a su equipo de cuidados de la salud qué tipo de diabetes tiene.
- Averigüe dónde puede ir a buscar apoyo.
- Aprenda cómo el cuidado de la diabetes le puede ayudar a sentirse mejor tanto hoy como en el futuro.
PASO 2:
Conozca los factores clave de la diabetes.

Pregúntele a su equipo de cuidados de la salud qué puede hacer para controlar mejor el azúcar en la sangre, la presión arterial y el colesterol. Esto puede reducir su riesgo de sufrir un ataque al corazón o al cerebro u otros problemas relacionados con la diabetes.

El azúcar en la sangre y la prueba A1C

¿Qué es la prueba A1C?
La prueba A1C es un análisis de sangre que se usa para medir su nivel promedio de azúcar en la sangre durante los últimos 3 meses. Es diferente de los chequeos de azúcar en la sangre que usted se hace todos los días.

¿Por qué es importante?
Usted necesita conocer sus niveles de azúcar en la sangre con el paso del tiempo. No es bueno que esos números suban mucho. Los niveles altos de azúcar en la sangre le pueden causar daño al corazón, los vasos sanguíneos, los riñones, los pies y los ojos.

¿Cuál es el nivel ideal de la prueba A1C?
El nivel ideal para la mayoría de las personas con diabetes es menos de 7. Averigüe cuál debería ser el suyo.
La presión arterial

¿Qué es la presión arterial?
La presión arterial es la fuerza con la que la sangre empuja contra la pared de los vasos sanguíneos.

¿Por qué es importante?
Si la presión arterial está muy alta, el corazón tiene que trabajar demasiado. Esto puede resultar en un ataque al corazón o al cerebro, o en enfermedad de los riñones.

¿Cuál es el nivel ideal de la presión arterial?
Su nivel ideal para la presión arterial debería ser menos de 140/80, a no ser que su médico le indique un nivel diferente.
El colesterol

¿Qué es el colesterol?
Hay dos tipos de colesterol en la sangre: LDL y HDL. El colesterol LDL o “malo” puede acumularse en los vasos sanguíneos y taparlos. Esto puede causar un ataque al corazón o al cerebro. El colesterol HDL o “bueno” ayuda a sacar el colesterol “malo” de los vasos sanguíneos.

¿Cuáles son los niveles ideales del LDL y HDL para las personas con diabetes?
Pregunte en cuánto debería tener el colesterol. Si tiene más de 40 años de edad, tal vez tenga que tomar algún medicamento de estatina para la salud del corazón.

Medidas Que Usted Puede Tomar

✔ Pregúntele a su equipo de cuidados de la salud:

- Cuál es su nivel de azúcar en la sangre (A1C), presión arterial y colesterol y cuáles deberían ser sus niveles. Sus niveles ideales dependerán de cuánto tiempo ha tenido diabetes, de otros problemas de salud y de qué tan difícil es controlar su diabetes.

- Qué puede hacer para lograr estos resultados ideales.

✔ Escriba sus resultados en la tarjeta de registro que se encuentra al final de este folleto para seguir su progreso.
PASO 3:
Aprenda a vivir con la diabetes.
Es normal sentirse agobiado, triste o enojado cuando se tiene diabetes. Tal vez usted sepa las medidas que tiene que tomar para mantenerse sano pero se le hace difícil seguir el plan por mucho tiempo. Esta sección tiene consejos sobre cómo hacerle frente a la diabetes y cómo alimentarse bien y mantenerse activo.

Hágale frente a la diabetes.
- El estrés puede incrementar su nivel de azúcar en la sangre. Aprenda diferentes maneras de reducir el estrés. Haga respiraciones profundas, jardinería, camine, medite, distraigase con un pasatiempo favorito o escuche su música preferida.
- Si se siente deprimido, pida ayuda. Tal vez un consejero de salud mental, un grupo de apoyo, líder de su comunidad religiosa, amigo o familiar que escuche sus preocupaciones le ayude a sentirse mejor.

Aliméntese bien.
- Con la ayuda de su equipo de cuidados de la salud, haga un plan de alimentación para la diabetes.
- Escoja alimentos bajos en calorías, grasas saturadas, grasas trans, azúcar y sal.
- Consuma alimentos con más fibra, como cereales, panes, galletas, arroz o pasta integrales.
- Escoja alimentos como frutas, vegetales, granos, panes y cereales integrales, y leche y quesos sin grasa o bajos en grasa.
- Tome agua en lugar de jugos o sodas regulares.
- Cuando se sirva, llene la mitad del plato con frutas y vegetales, una cuarta parte del plato con un proteína baja en grasa como frijoles, o pollo o pavo sin el pellejo, y la otra cuarta parte del plato con un cereal integral, como arroz o pasta integral.
El tamaño de la porción es importante.

- 1/4 proteína
- 1/2 vegetales y frutas
- Productos lácteos (sin grasa o bajos en grasa)
- 1/4 granos

Manténgase activo.

- Póngase la meta de ser más activo la mayoría de los días de la semana. Empiece despacio caminando por 10 minutos, 3 veces al día.
- Dos veces a la semana, trabaje para aumentar su fuerza muscular. Use bandas para ejercicios de resistencia, haga yoga, trabaje duro en el jardín (haciendo huecos y sembrando con herramientas) o haga flexiones de pecho.
- Manténgase en un peso saludable usando su plan de alimentación y siendo más activo.

Sepa lo que debe hacer todos los días.

- Tome sus medicamentos para la diabetes y para otros problemas de salud aun cuando se sienta bien. Pregúntele a su médico si debería tomar aspirina para prevenir un ataque al corazón o al cerebro. Avísele a su médico si no tiene dinero para comprarse los medicamentos o si está sintiendo algún efecto secundario al tomarlos.
- Examíñese los pies todos los días para ver si tienen cortes, ampollas, manchas rojas o inflamación. Llame de inmediato a su médico si tiene alguna llaga que no cicatriz.
- Lávese los dientes y use hilo dental todos los días para mantener sanos los dientes, la boca y las encías.
• Deje de fumar. Pida ayuda para hacerlo. Llame al 1-800-QUITNOW (1-800-784-8669).
• Lleve un registro de su nivel de azúcar en la sangre. Tal vez deba medírsela más de una vez al día. Use la tarjeta al final de este folleto para llevar un registro de sus niveles de azúcar en la sangre. No se olvide de enseñarle esta tarjeta a su equipo de cuidados de la salud.
• Mídase la presión arterial si el médico se lo indica, y mantenga un registro.

Hable con su equipo de cuidados de la salud.
• Consulte con su médico si tiene alguna pregunta acerca de su diabetes.
• Informele de cualquier cambio en su salud.

Medidas Que Usted Puede Tomar

✓ Pida un plan de alimentación saludable.
✓ Pregunte sobre diferentes maneras para mantenerse más activo.
✓ Pregunte cómo y cuándo debe medirse el nivel de azúcar en la sangre y cómo usar los resultados para controlar su diabetes.
✓ Use estos consejos como guía para su autocontrol.
✓ Cada vez que tenga una cita con su equipo de cuidados de la salud, déjele saber si su plan de autocontrol le está dando buenos resultados.
PASO 4: Obtenga los cuidados médicos de rutina para mantenerse sano.

Visite a su equipo de cuidados de la salud por lo menos dos veces al año para encontrar y tratar los problemas a tiempo.

Asegúrese de que en cada visita médica le hagan:
- un chequeo de la presión arterial
- un chequeo de los pies
- un chequeo del peso
- una revisión de su plan de autocontrol

Dos veces al año hágase:
- la prueba A1C. Quizás tenga que hacerse la prueba más a menudo si su resultado es de más de 7.

Una vez al año, asegúrese de que le hagan:
- la prueba para medir el colesterol
- un examen completo de los pies
- un chequeo dental para ver cómo están los dientes y las encías
- un examen completo de los ojos (con dilatación de las pupilas) para ver si tiene algún problema
- poner la vacuna contra la gripe o la influenza
- exámenes de sangre y de orina para ver si tiene algún problema con los riñones

Por lo menos una vez, hágase poner:
- la vacuna contra la pulmonía (neumonía)
- la vacuna contra la hepatitis B
Medicare y la diabetes

Si usted tiene Medicare, averigüe cómo es la cobertura de su plan para el cuidado de la diabetes. Medicare cubre parte del costo de:

- educación sobre la diabetes
- suministros para la diabetes
- medicamentos para la diabetes
- consultas con un dietista o nutricionista
- zapatos especiales, si los necesita

✔ Medidas Que Usted Puede Tomar

✔ Pregúntele a su equipo de cuidados de la salud sobre éstos y otros exámenes que pueda necesitar.

✔ Pregunte qué significan los resultados.

✔ Anote la fecha y la hora de su próxima visita médica.

✔ Use la tarjeta al final de este folleto para mantener un registro de sus cuidados para la diabetes.

✔ Si tiene Medicare, revise su plan.

Cosas que debe recordar:

- Usted es el miembro más importante de su equipo de cuidados de la salud.
- Siga los cuatro pasos en este folleto que le ayudarán a entender cómo controlar su diabetes.
- Aprendan cómo lograr sus resultados ideales o metas para los factores clave de la diabetes.
- Pida ayuda a su equipo de cuidados de la salud.
Registro de mis cuidados para la diabetes

Cómo usar este registro.

Lea primero las barras horizontales que están sombreadas. Éstas le indican:

- el nombre del examen o chequeo
- con qué frecuencia debe hacerse el examen o chequeo
- cuál es su resultado ideal para el azúcar en la sangre (la prueba A1C), la presión arterial y el colesterol

Luego, debajo anote la fecha y los resultados de cada examen o chequeo que le hagan. Lleve esta tarjeta a las visitas médicas y muéstresela a su equipo de cuidados de la salud. Hable sobre sus resultados ideales y si los está logrando.

<table>
<thead>
<tr>
<th>Azúcar en la sangre (A1C) – Por lo menos dos veces al año</th>
<th>Mi meta: ___</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fecha</td>
<td></td>
</tr>
<tr>
<td>Resultado</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Presión arterial – En cada visita médica</th>
<th>Mi meta: ___</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fecha</td>
<td></td>
</tr>
<tr>
<td>Resultado</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Colesterol – Una vez al año</th>
<th>Mi meta: ___</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fecha</td>
<td></td>
</tr>
<tr>
<td>Resultado</td>
<td></td>
</tr>
</tbody>
</table>
Registro de mis cuidados para la diabetes.

Cómo usar este registro.

Use esta página para anotar la fecha y los resultados de cada prueba, examen o vacuna.

<table>
<thead>
<tr>
<th>En cada visita</th>
<th>Fecha</th>
<th>Resultado</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chequeo de los pies</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Revisión del plan de autocontrol</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Chequeo del peso</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Revisión de los medicamentos</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Una vez al año</th>
<th>Fecha</th>
<th>Resultado</th>
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<tbody>
<tr>
<td>Examen dental</td>
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</tr>
<tr>
<td>Examen completo de los ojos con dilatación de las pupilas</td>
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<td></td>
</tr>
<tr>
<td>Examen completo de los pies</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Vacuna contra la gripe o influenza</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Examen de los riñones</td>
<td></td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>Por lo menos una vez</th>
<th>Fecha</th>
<th>Resultado</th>
</tr>
</thead>
<tbody>
<tr>
<td>Vacuna contra la pulmonía (neumonía)</td>
<td></td>
<td></td>
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<tr>
<td>Vacuna contra la hepatitis B</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Autocontrol del nivel de azúcar en la sangre

Cómo usar esta tarjeta.

Esta tarjeta tiene tres secciones. Cada sección le indica cuándo chequearse el azúcar en la sangre: antes de cada comida, 1 a 2 horas después de las comidas y a la hora de acostarse. Cada vez que se chequee el azúcar en la sangre anote la fecha, la hora y los resultados. Lleve esta tarjeta a las citas médicas y muéstresela a su equipo de cuidados de la salud. Hable sobre sus resultados ideales y si los está logrando.

<table>
<thead>
<tr>
<th>Fecha</th>
<th>Hora</th>
<th>Resultado</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Mi nivel de azúcar en la sangre antes de las comidas:</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>El resultado ideal generalmente es de 70 a 130.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mi meta:</td>
<td></td>
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<td>________</td>
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</table>

<table>
<thead>
<tr>
<th>Fecha</th>
<th>Hora</th>
<th>Resultado</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Mi nivel de azúcar en la sangre de 1 a 2 horas después de las comidas:</strong></td>
<td></td>
<td></td>
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<tr>
<td>El resultado ideal generalmente es de menos de 180.</td>
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<tr>
<td>Mi meta:</td>
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<td>________</td>
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<table>
<thead>
<tr>
<th>Fecha</th>
<th>Hora</th>
<th>Resultado</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Mi nivel de azúcar en la sangre a la hora de acostarme:</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>El resultado ideal generalmente es de 110 a 150.</td>
<td></td>
<td></td>
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<tr>
<td>Mi meta:</td>
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<td>________</td>
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</table>
Notas:
Información adicional:

Programa Nacional de Educación sobre la Diabetes
(National Diabetes Education Program)
1-888-693-NDEP (1-888-693-6337) • www.diabetesinformacion.org

Diabetes HealthSense:
Recursos para vivir mejor.
www.YourDiabetesInfo.org/HealthSense

Academia de Nutrición y Dietética
(Academy of Nutrition and Dietetics)
1-800-877-1600 • www.eatright.org

Asociación Americana de Educadores en Diabetes
(American Association of Diabetes Educators)
1-800-338-3633 • www.diabeteseducator.org

Asociación Americana de la Diabetes
(American Diabetes Association)
1-800-DIABETES (1-800-342-2383)
www.diabetes.org o en español www.diabetes.org/espanol

Asociación Americana del Corazón
(American Heart Association)
1-800-AHA-USA1 (1-800-242-8721) • www.heart.org

Centros de Servicios de Medicare y Medicaid
(Centers for Medicare & Medicaid Services)
1-800-MEDICARE (1-800-633-4227)
es.medicare.gov o es.medicare.gov/coverage/diabetes-screenings.html

Centros para el Control y la Prevención de Enfermedades
(Centers for Disease Control and Prevention)
1-800-CDC-INFO (1-800-232-4636)
www.cdc.gov/diabetes o en español www.cdc.gov/diabetes/spanish

Fundación para la Investigación de la Diabetes Juvenil
(JDRF, por sus siglas en inglés)
1-800-533-CURE (1-800-533-2873) • www.jdrf.org

Instituto Nacional de la Diabetes y de Enfermedades Digestivas y Renales
Centro Coordinador Nacional de Información sobre la Diabetes
(National Institute of Diabetes and Digestive and Kidney Diseases
National Diabetes Information Clearinghouse)
1-800-860-8747 • www.niddk.nih.gov

Programa de Educación Nacional sobre la Enfermedad de los Riñones
(National Kidney Disease Education Program)
1-866-4-KIDNEY (1-866-454-3639)
El NDEP agradece a la Martha M. Funnell, MS, RN, CDE, educadora certificada en diabetes del Centro de Investigación y Capacitación en la Diabetes de Michigan, quien revisó este material para verificar su presión técnica.

El Programa Nacional de Educación sobre la Diabetes (NDEP) del Departamento de Salud y Servicios Humanos de los Estados Unidos es un programa conjunto de los Institutos Nacionales de la Salud (NIH) y de los Centros para el Control y la Prevención de Enfermedades (CDC). Cuenta con el apoyo de más de 200 organizaciones asociadas.

Appendix E:

Diabetes and Sleep Hygiene Powerpoint Presentation
Sleep Hygiene

Johanka Stavenik, OTS & Colin Westerfield, OTS
Pacific University
School of Occupational Therapy
What is Sleep?
Formal Definition

According to the American Occupational Therapy Association, sleep is defined as:

“Temporary state of unconsciousness from which one can awaken when stimulated” (AOTA, 2012).
Occupational Therapy’s (OT) Definition of Sleep

Includes activities such as:

• Going to sleep
• Staying asleep
• Ensuring health and safety through sleep participation (AOTA, 2008).
Sleep Preparation

- Routines that prepare the self for comfortable rest
  - Time of day, grooming, changing clothes, meditation, prayer

- Preparing physical environment
  - Making bed, adjusting temperature, setting alarm, securing the home
Sleep Participation

Taking care of personal need for sleep

- Ceasing activities to begin sleep
- Dreaming
- Napping
- Sustaining sleep without disruption
Why is Sleep Important?

Getting enough sleep at the right times can help protect:
• Mental health
• Physical health
• Quality of life
• Safety (NIH, 2012).

Sleep significantly affects occupational performance, participation, & engagement in daily life and self care.
What Interferes With Sleep?

Pain/discomfort
Stress/anxiety/depression
Hormonal changes
Smoking/caffeine/alcohol
Medication
Diabetes

Lack of predictable routine
Frequent urination
Environment (noise, light, temperature, clutter)
Work/school schedule
Large meals before bed
Diabetes and Sleep Research

• Poor sleep duration/quality
• Sleep restriction studies
• Sleep apnea
• Shift work
The Role of Occupational Therapy

• What is important to the client? How can we help them achieve that?

• Help identify supports & barriers to sleep.

• Help establish healthy routines to improve sleep.
Strategies for Getting Enough Sleep

Establishing predictable routines

Utilizing coping skills, stress management, & time management

Avoid caffeine after 12 - 2 pm & large meals before bed

Participate in exercise (at least 3 hours before sleep)

Modifying environment
  • Noise, light, temperature, bedding, technology

Incorporating mind-body techniques
  • Progressive muscle relaxation, guided imagery, yoga, meditation

Take medication as prescribed
Conclusion

Sleep plays an important role in diabetes management

Sleeping 6-8 hours/night is the recommended amount

Sleep promotes:
- Mental health
- Physical health (improved diabetes management)
- Emotional health
- Safety

If having difficulty with sleep, find one or more strategies that might work for you and implement them into your daily routine.
Questions?
Appendix F:

Cultural Competency Article
Appendix G:

Additional Diabetes Related Information for IDC Resources Manual
Diabetes and Sleep

Sleep Screen
- Ask if the client is sleeping enough and well.
- Have the client fill out the Diabetes and Sleep handout and review it.
- If a client is not sleeping well, determine the cause. Causes may include:
  - Sleep apnea
  - Restless leg syndrome
  - Neuropathy in upper and/or lower extremities
  - Atypical work schedule
  - Stress/anxiety/worry
  - Depression
  - Medication
  - Large and/or heavy meals before bed
  - Environment in which they sleep may have bright lights, noise, extreme temperatures
  - Other

Importance of sleep in relation to diabetes
- Diabetes may be one of the causes as to why sleep is disrupted. However, inadequate sleep can be one of the precursors to diabetes.
- Appropriate sleep helps keep individuals
  - Mentally healthy
    - Able to stay alert, better learn and retain information, process information without increased difficulty, make appropriate decisions
  - Emotionally healthy
    - Able to control emotions and behavior and cope with change better
  - Physically healthy
    - During sleep the heart and blood vessels are being repaired. Without this process heart disease, kidney disease, high blood pressure, stroke, and other complications can arise.
    - Without appropriate sleep, hormone levels in the body change.
      - The hormone ghrelin (responsible for feeling hungry) increases and the hormone leptin (responsible for feeling full) decreases. In this case, individuals often eat when they should instead be resting the body, and typically eat items that contain or breakdown into sugar (e.g. sweets, pastries, cereal, sugary drinks, etc.). Increased sugar in the blood, when the body’s cells are insulin resistant and therefore cannot remove the sugar from the blood, often becomes a diabetes related complication.
      - Maintenance of the immune system. The immune system is the body’s defense mechanism, it helps fight off sickness (cold and flu)
and infection. A common complication with diabetes is the slow healing of wounds. Without a strong immune system, these wounds can become infected and heal even more slowly.

**Tips for better sleeping**

- Establish routine (going to bed and waking up at the same time everyday)
- No caffeine after 12pm and avoid alcohol and smoking before bed (these are all considered stimulants)
- Regular exercise (minimally 2 hours before bed)
- Create a comfortable environment in the bed room (low lights, soothing music, scented candles)
- Write down things that are on repeat in your head or are causing anxiety or concern
- If blood glucose levels are too low in the mornings (numbers should range between 70-140 mg/dL), have a light (protein or veggie) snack before bed
- Do not nap more than 20 min
- Try having a warm bath or cup of non-caffeinated tea
- Avoid large and/or heavy meals before bed
- Relaxation techniques
Please visit the link below for access to patient education materials in both English & Spanish:

http://clinicians.org/our-issues/acu-diabetes-patient-education-series/
Appendix H:

Research Symposium Poster
Interprofessional Diabetes Clinic (IDC): Occupational Therapy for Diabetes in A Community Health Setting

Johanka Stavenik, OTS and Colin Westerfield, OTS
Pacific University, School of Occupational Therapy, Hillsboro, Oregon

What is IDC?
The Interprofessional Diabetes Clinic (IDC) offers services to anyone with diabetes and emphasizes affordable, preventative care for Latinos and other underserved populations in Washington County.

Client Demographics
Age: Mid 30s to early 60s
Gender: 34% Male; 66% Female
Insurance: 100% self pay
Native Language: 75% Spanish

Typical Client Appointment
Clients see one or more of the following diabetes management services:
- Physician Assistant
- Optometry
- Dental Hygiene
- Physical Therapy
- Occupational Therapy
- Dietician
- Pharmacy
- Clinical Psychology

Interprofessional Collaboration
Students and faculty convene interprofessional case conferences to discuss services provided to each client, any major concerns, referrals, and follow-up appointments.

Occupational Therapy Services
Occupational therapy (OT) students practiced client-centered care via screenings, direct service, education, and referrals while working with an interprofessional team.

Needs Assessment
Students conducted a needs assessment of the IDC and its patient population. The assessment revealed needs for:
- Improved patient understanding of clinic functioning
- Additional patient information regarding IDC’s role in promoting diabetes management
- Further cultural competency discussion among IDC students and faculty
- A community presentation addressing interplay between diabetes and sleep

Theoretical Foundation
Students used Bronfenbrenner’s Ecological Systems Theory to assess patients’ lived experiences. Bronfenbrenner’s model illuminated social, cultural, economic, and other systems affecting diabetes management among patients.

Kielhofner’s Model of Human Occupation guided service delivery as students emphasized meaningful routines in patient-practitioner interactions.

Project Implementation
To address identified needs, students:
- Compiled a diabetes management handbook for patients
- Delivered an educational presentation on diabetes and sleep hygiene
- Selected a cultural competency article for IDC students and faculty

Outcomes
Project implementation helped IDC team members develop a cohesive approach to culturally competent service delivery. Students developed a blueprint for educational resources used at IDC and achieved community outreach via Tuality Health Education Center.

Future Applications
OT students anticipate improved patient understanding of self-management in diabetes care and the IDC’s role in that process. OT students hope to increase cultural competency among IDC students and faculty to enhance communication and service delivery.
Appendix I: Future Recommendations, Goals, and Outcomes
Future Recommendations, Goals, and Outcomes

After creating a patient resource handbook, selecting/submitting a cultural competency article, and performing a presentation on diabetes and sleep, Stavenik and Westerfield determined future recommendations for OT students at the IDC. The recommendations relate to 3 interest areas, which include goals, objectives, and outcomes listed below:

1. **Resource Recommendations** - Provide future patients with the IDC resource handbook and determine the frequency/quality of its use.

2. **Cultural Competency Recommendations** - Implement a plan of increased cultural competency among IDC students.

3. **Community Outreach Recommendations** – Continue OT Department’s role as a resource for diabetes health education in the community.

**Resource Recommendations**

**Outcome #1**: To improve diabetes self-care routines for IDC patients.

**Goal**: IDC patients will develop an understanding of multidisciplinary perspectives on diabetes management and how these perspectives apply to diabetes self-care.

**Objective #1**: Patients will use their diabetes resource handbook as part of their diabetes self-care routines.

**Measured**: Future OT students will create a follow-up survey to track use of the patient resource handbook. Survey questions will be included to gauge the frequency and/or quality of home program/notebook usage. For example, a question could be included, asking, “How many times have you used your home/program in the last month?” Answers of “once” or “not at all” would indicate the home program had not factored into diabetes self-care routines. Answers of “more than 10 times” would indicate more frequent usage.

**Recorded**: Patients will report on the use of their home program and notebook following their visit to the IDC.

**Cultural Competency Recommendations**

**Outcome #2**: To improve cultural competency among IDC student participants.

**Goal**: IDC student participants will deepen their understanding of cultural factors influencing IDC patients’ diabetes care.

**Objective #2**: Students will read at least one article [e.g. Wong article in Needs Assessment and/or *Diabetes Self-Management in the Migrant Latino Population* (Weiler and Crist, 2007)] exploring the lived experience of patients similar to those accessing the IDC (e.g. Latino immigrants of low socioeconomic status).

**Measured**: Students will be required to upload a brief written response to an article posted on the IDC Moodle site prior to attending an IDC session. A sample question could be: “Briefly explain at least three factors that create challenges for diabetes self-management in the IDC patient population.”
Recorded: Patient responses will be uploaded to Moodle for review by faculty.

Community Outreach Recommendations
Outcome #3: To improve outreach to individuals with diabetes within local community
Goal: IDC students will build upon OT department’s emerging role as a resource for diabetes health educators for support groups at Tuality Health Education.
Objective #3: Students will propose a diabetes support group presentation (e.g. similar to diabetes and sleep presentation, focusing on OT’s role in diabetes management) to be presented in the community.
Measured: Students will contact Tuality Health Education Center (or other similar organization, if Tuality is unavailable) to determine feasibility of diabetes support group presentation.
Recorded: Students will verbally report results of Tuality Health Education Center correspondence to OT faculty advisor.