Addressing Health Disparities: Promoting the use of Technology Assisted Care in the Hispanic/Latino Community

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<table>
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<th>Have you ever …</th>
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<tr>
<td>• Booked travel arrangements online</td>
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<tr>
<td>• Purchased an item costing more than $100 online</td>
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<tr>
<td>• Checked bank account information or moved money between accounts online</td>
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<tr>
<td>• Applied for a credit card online</td>
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<td>• Signed up for insurance online</td>
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<tr>
<td>• Signed up for telephone, cable services, or utilities online</td>
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<tr>
<td>• Paid a bill online</td>
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<tr>
<td>• Owned a Kindle or iPad</td>
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<tr>
<td>• Owned access to an electronic book to read on your computer</td>
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<tr>
<td>• Purchased audio files (e.g., music, books) online</td>
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<td>• Purchased/rented video media (e.g., movies, TV shows) online</td>
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<tr>
<td>• Owned a cell phone with a digital camera or smart phone with Internet access</td>
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<td>• Owned a robotic cleaning device (e.g., Roomba)</td>
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<td>• Filed your taxes online</td>
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<td>• Used a bank that was online only (i.e., one with no physical structure)</td>
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<td>• Owned or interested in owning a vehicle with voice activation technology for cell phone use and/or interfacing with stereo or comfort control systems</td>
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Although behavioral health is considered an essential healthcare benefit, for Latinos, access to substance use disorder treatment and recovery services is hindered due to workforce shortages, transportation issues, lack of bilingual and culturally-competent professionals and other factors.

Using Technology Assisted Care (TAC) to deliver substance use disorders treatment and recovery services is one approach to increase access among the underserved.

Little is known about the acceptability of Telehealth technologies among Latinos. This webinar will address the current literature on Latinos and Telehealth, including current statistics on technology usage.

Overview of 4 research studies focused on Latinos and Telehealth.
Technology is a part of our lives ...
... and it’s *Creeping* into clinical practice

(Mishna et al., 2012)
90% of American adults have cell phones.

About 87% of Americans currently use the Internet at least occasionally.

58% have smart phones. 

(Pew Report, 2012)
No matter a person’s salary.... more people own cell phones than **USE** the internet

(Fox, 2013)
Americans now spend an average of **34 hours** per month using mobile apps and mobile web browsers but only **27 hours** a month getting online with their PCs.

(Digital Consumer Report, 2013)
29% of Americans own a tablet

The average American owns FOUR technology devices

(Digital Consumer Report, 2013)
80% send and receive text messages

(Pew Report, 2012)
What do we know about the use of technology among our clients?

- Survey of 8 urban drug treatment clinics in Baltimore (266 patients)

- Clients had access to
  - Mobile Phone (91%)
  - Text Messaging (79%)
  - Internet/Email/Computer (39 - 45%)

(McClure et al., 2012)
Another study found that 95% of teens receiving treatment at emergency rooms had access to mobile phones and participated in text messaging. (Ranney et al., 2012)

Text message-based behavioral interventions were shown to be acceptable, valid, and reliable with teens on a variety of sensitive topics.
86% of Latinos say they own a cell phone...

49% of Hispanic Latinos Own a Smart Phone

Among internet users, Latinos (68%), use social networking sites like Twitter and Facebook at least occasionally.

76% of Hispanic Latinos use smart phones or tablets to access the internet

Smartphone Ownership, Mobile Internet Use, and Social Networking Site Use, 2012

(% saying they ...)

Among all adults

- Own a cell phone
  - Hispanic: 86
  - White: 84
  - Black: 90
- Own a smartphone
  - Hispanic: 49
  - White: 46
  - Black: 50

Among internet users

- Access the internet on a cellphone, tablet or other mobile handheld device, at least occasionally
  - Hispanic: 76
  - White: 60
  - Black: 73
- Use Facebook, Twitter or other social networking sites
  - Hispanic: 68
  - White: 66
  - Black: 69

Computer Ownership, and Internet Use, 2012
(% of all adults saying they ...)

Own a desktop/laptop computer
- Hispanic: 72%
- White: 83%
- Black: 70%

Use the internet
- Hispanic: 78%
- White: 87%
- Black: 78%

Nearly half (47%) of Hispanic Latinos live in Cell Phone Only Households

Among Latinos, 66% of those ages 18-29 say they own a smart phone while only 14% of those ages 65+

This is a higher rate than Whites or African-Americans

Half (50%) of Hispanic internet users are native born and half are foreign born. By contrast, among Hispanics who do not use the internet, just 21% are native born while 79% are foreign born.

95% of Latinos from families with annual incomes of $50,000 or more own a desktop or laptop computer—the highest ownership rate among Latinos.
Among native-born Latinos who use social networking sites, 86% do so mostly or only in English. By contrast, among immigrant Latinos who use social networking sites, more than half (55%) do so mostly or only in Spanish.

Among Latino internet users... **72%** are either English dominant (31%) or bilingual (41%), and **28%** are Spanish dominant.
Having children in a household is linked to going online. Half (52%) of Hispanic internet users have dependent children under age 18 living in their households.

• More Latinos (25%) use their mobile phones to search for health information than non-Latinos (15%)
• More **trusting** of mobile-delivered messages and more receptive to health text messages and reminders
• **Overrepresented** on facebook, twitter and other social media
• Significantly more likely than whites to use **non-voice data applications** on their mobile devices.
• Mobile adoption and usage has been bolstered by the proliferation of **diverse offerings** aimed at putting more mobile products and services within reach of lower-income customers.
30.4% of Hispanic Latinos under the age of 65 are uninsured compared to almost 16% of all Americans.
Current State of Latinos in the U.S.
Current State of Latinos in the U.S.
Paradox
Encouraging evidence suggests positive treatment outcomes

(Bickel et al., 2008; Carroll & Rounsaville, 2010)
To date, more than 100 different computer-assisted therapy programs have been developed for a range of mental disorders and behavioral health problems.

(Klein, et al., 2012; Moore, et al., 2011)
In general, technology-based behavioral health interventions have been shown to be well accepted, efficacious and cost effective, especially when compared to standard care

Aronson, Marsch, & Acosta, 2013
TAC Interventions...

• may consist of text, audio, video, animations, and/or other forms of multimedia

• use information from medical records, physiological data capture devices, or other sources

• may be interactively customized, or tailored, to an individual user’s needs

Aronson, Marsch, & Acosta, 2013
More Specifically... there are meta-analytic evaluations of technology assisted care programs for a range of Psychiatric Disorders

- Depression and Anxiety (Spek et al., 2007; Andrews et al., 2010)
- Illicit Drug Use (Tait, 2013)
- Smoking (Rooke, 2010)
- Alcohol Use (Khadjesari, 2011)
Computers
Tablets
Mobile Phones
Web-based Screeners
Web-based Support Groups
Interactive Voice Response
Life – Virtual Reality
Video Games
Enable
Anonymity
Cost Effective
Flexible
Transcend
Geography
Facilitate Linkages
With TACs, clinicians have the opportunity to extend their reach by offering additional resources and support outside of ‘normal clinic hours’.
TACs could serve as a proverbial “foot in the door” for clients who are uneasy about seeking SUD treatment (Rummel & Joyce, 2010)
TACs may also be offered as stand-alone interventions, which may be particularly relevant in rural or other settings where access to care may be limited.
TACs are Embedded Within Other Systems

- **Medical Settings**
  - emergency rooms
  - primary care offices
  - health clinics

- **Criminal justice Settings**
  - probation and parole offices
  - jails
  - prisons

- **Educational Settings**
  - colleges
  - schools
Technology-Assisted Care Interventions.... Could they help Increase the Number of Individuals Entering SUD Treatment?
In 2011, 20.6 million people aged 12 or older met the criteria for substance use disorders.

19.3 million people needed but did not receive treatment for illicit drug or alcohol use.

- Did not feel they needed treatment: 95.3%
- Felt they needed treatment – Did not make an effort: 3.3%
- Felt they needed treatment – Did make an effort: 1.5%
Reasons why people don’t enter treatment...

- alcohol treatment is “only for real alcoholics”
- “treatment wouldn't work for me”
- “treatment would hurt my career”
- not believing that the problem was serious enough for treatment
- believing that they should be able to handle the problem on their own
- believing the problem would get better on its own
- liked to drink too much to quit

Stecker, McGovern, & Herr, 2012
TAC Interventions

- Serve as adjuncts to standard treatment
- Save clinician time
- Extend clinician expertise
- Integrate other EBPs to provide additional services to clients with co-morbid conditions
- Provide access to computerized smoking cessations programs or other health-related conditions

(Carroll & Rounsaville, 2010)
Customer Demand
Professionals will need to view technology as a powerful partner in improving quality and productivity of behavioral healthcare.

Marsch & Gustafson, 2013
Health Disparities
It is “a time to raise awareness about the well-documented health disparities that continue to affect racial and ethnic minorities.”
Delivery of Telehealth Services is Critical for Latinos
“One of the keys to reducing health disparities in the future is to improve access... to medical professionals through modern advances and mHealth... health care and medicine performed over mobile devices like smartphones and tablets.”

Dr. Elena Rios, National Hispanic Medical Association, Published May 17, 2012, Fox News Latino
There are roughly 54 million Hispanics living in the United States... representing approximately 17% of the U.S. total population....making people of Hispanic origin the nation's largest ethnic or race minority.

US Census Bureau 2013
It is well documented that racial/ethnic minorities and socioeconomically disadvantaged individuals face significant barriers to receiving basic health care.
African Americans and Latinos make up the largest proportion of minority populations who experience the most severe and concentrated types of health disparities. 

(Chang, Bakken, & Brown, 2004)
Much of this disparity in health is thought to be due to lack of timely access to appropriate health care

(Nelson, 2002)

George, Hamilton, and Baker, 2012
Medically underserved populations experiencing health disparities tend to be concentrated in inner city or rural areas.
Barriers to Care

Key barriers to mental health treatment for Hispanics/Latinos:

• economic barriers (cost, lack of insurance)
• lack of awareness about mental health issues and services
• stigma associated with mental illness
• lack of education and pervasive poverty
• language barriers
• lack of culturally appropriate services
• Lack of appropriate intervention strategies
• mental health professional shortages
Even after controlling for literacy, health status... researchers find that LEP persons make fewer physician visits and receive fewer preventative services.

Masland & Snowden, 2010
How Telehealth Can Improve Outcomes

- Increase access to **interpreters**
- Increase access to **preventative care**
- Increase access to **mental health professionals** and **addiction counselors**
- Reduction in patient-related health **expenditures**
- Increase access in **rural** areas
- Increase **medication adherence**
- Others?
Review of Literature on Use of Technology-Based Interventions with Hispanic Latinos

5 Articles
Articles

1. Communication Technologies for Interpretation Services
2. How Hispanic-Latinos and African Americans feel about telemedicine
3. Telephone-Based CBT for Hispanic-Latinos with Depression
4. Telepsychiatry and Hispanic-Latinos with Depression
5. Mobile Health and Hispanic/Latino Migrant Farmworkers
1. Using Communication Technologies to Increase Availability of Interpretation Services

Masland & Snowden, 2010
Latinos and Language

- HL1 – 23%, English dependent
- HL2 – 28%, Bilingual English preferred
- HL3 – 12%, Bilingual English and Spanish
- HL4 – 17%, Bilingual Spanish preferred
- HL5 – 19% Spanish dependent
2. Latinos beliefs about telemedicine

- Telemedicine could cut down on misdiagnoses
- Belief in the precision of computers
- Privacy would be protected and technology would provide more privacy
- Preference for telemedicine because of embarrassment regarding medical condition
- Timely access to care including specialty care
- Might provide a solution to transportation problems
Advantages & Concerns as compared to their usual modes of health care

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<tr>
<th>Advantages</th>
<th>Concerns</th>
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<tr>
<td>• Reduced waiting time</td>
<td>• Privacy/confidentiality issues related to the presence of personal information on the internet to a lesser extent</td>
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<td>• Immediate feedback</td>
<td>• Adequacy of telemedicine scopes to make accurate diagnoses, to a lesser extent</td>
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<tr>
<td>• Increased access to specialists</td>
<td>• Concerns about whether telemedicine would be available to uninsured/undocumented</td>
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<tr>
<td>• Increased access to multiple medical opinions</td>
<td></td>
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<tr>
<td>• Convenience for children and elderly</td>
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<tr>
<td>• Greater accuracy of diagnoses due to precession of computers</td>
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<tr>
<td>• Avoiding poverty-related embarrassment and in-person physician interaction</td>
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Latino participants also noted several additional advantages and seemed, overall, more **positive** and **enthusiastic** about the prospect of telemedicine.
both groups may experience what is commonly called the “digital divide..Latinos had a more positive attitude
Technology was seen by many Latinos as assuring greater accuracy (more exact data). Such optimism and openness towards technological innovations is encouraging.
3. Tested the effectiveness of culturally tailored, telephone-based cognitive-behavioral therapy (CBT) for improving depression outcomes among Latino primary care patients living in rural settings.
4. Telepsychiatry for Treatment of Depression
5. Mobile Health & Migrant Farmworkers
"So often new technology broadens the gap between rich and poor. So it's particularly satisfying in this case to be able to minimize health disparities using technology and at the same time to evolve new ways to deliver health care."

Dr. Jorge Cuadros, Project Director
Increasing Access to Telehealth Among Latinos

- Robust high-speed internet infrastructure
  - Policies that encourage investment in newest technology
- Widespread deployment of telehealth-enabling technology
- Medicare, Medicaid and insurance policies permitted to bill for mobile technology
- FCC, pricing model for high-volume users to subsidize access of health applications
- CLAS guidelines expanded for telehealth
Whether its Group Counseling

Like This

or Like This
or Client Homework

Like This

or Like This
Expanding Access

Enhancing Treatment Services

TACs are in Clients’ Best Interest
time for new technology
The vital question for this field is not “Do computer-assisted therapies work?” but.....

(Kiluk et al., 2011)
“which specific computer-assisted therapies, delivered under what conditions to which populations, exert effects that approach or exceed those of standard clinician-delivered therapies”?

(Kiluk et al., 2011)
Thank you

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