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Background. There are limited studies in Latin America regarding the chronic consequences of Chikungunya virus (CHIK) infection, known as post-CHIK chronic disease (pCHIK-CD), and its impact, not just on organic but also mental conditions. We assessed the longest follow-up cohort of pCHIK-CD in Latin America, at La Virginia municipality, Risaralda, a new endemic area of CHIK in Colombia.

Methods. We conducted a follow-up cohort ambispective study in Colombia of 62 patients diagnosed with CHIK that persisted with pCHIK-CD after >2 years (February 2015–December 2017), initially serologically confirmed. Cases were followed-up and assessed with the validated instruments: quality of life (QoL) 36-item short-form health survey (SF-36), Zung Self-Rating Depression Scale (SDS) Zung Self-Rating Anxiety Scale (SAS), Pittsburgh Sleep Quality Index (PSQI) (licensed), and Fatigue Severity Scale (FSS).

Results. We compared 43 patients with persistent disease (pCHIK-CD+) and 19 controls (pCHIK-CD-). Mean age 44.1 years old, 69% female. Differences in SF-36 median scores between both groups were pCHIK-CD- 83.2% and pCHIK-CD+ 51.4% ($P < 0.0001$), in six dimensions (physical functioning [89.5%/62.1%], role physical [89.5%/39.0%], bodily pain [88.2%/44.4%], general health [77.7%/51.4%], vitality [79.5%/50.6%] and health transition [68.4%/40.7%]), differences were significant ($P < 0.05$). Depression and anxiety symptoms were significantly higher among those with pCHIK-CD+, 48.8%:21.1% ($P = 0.04$) and 97.7%:84.2% ($P = 0.047$). Moderate-to-severe scores at SDS and SAS showed marked difference in those pCHIK-CD+ ($P = 0.039$). At the PSQI we found significant differences at wake-up time for pCHIK-CD+ (early, $P = 0.0069$), sleep less time ($P = 0.0121$), and with more somnolence ($P = 0.006$). FSS were significantly higher in those with pCHIK-CD+, 55.2:37.5 ($P = 0.0213$).

Conclusion. According to our results, after 2 years CHIK patients persisted with chronic disease, including impairment in QoL, depression, anxiety, sleep quality and fatigue. These results support previous case reports from La Reunion (France) and Colombia, but show new impacts on mental health in a long-term follow-up for a significant proportion of those infected with CHIK. These findings have significant implications in areas affected by chikungunya epidemics, as well later endemic areas with chronic disease.

Disclosures. All authors: No reported disclosures.

This abstract has been withdrawn at the author's request.

428. Mobile Phone Access and Comfort: Implications for HIV and Tuberculosis Care in India and South Africa

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Background. India and South Africa shoulder the greatest global burden of TB and HIV, but care retention in these countries is suboptimal. Integration of mHealth into the health system has potential to strengthen retention. We conducted a study in two high burden yet disparate settings, Pune, India and Matlosana, South Africa, to (1) identify factors associated with mobile phone access, comfort of use and (2) understand long-term behavioral patterns of mobile phone access.

Methods. We conducted a cross-sectional study to assess demographics, mobile phone access, and comfort of use, followed by a longitudinal study to determine long-term access among adult participants (≥18 years) from 2014 to 2016. Participants were recruited from the TB clinic at Sassoon Government hospital in Pune and from four public clinics serving the general population in Matlosana. Univariate odds ratios compared characteristics of participants with discomfort texting to those who expressed comfort, as well as those unable to be contacted at six months vs. those contacted. We included variables significantly associated at the univariate level ($P < 0.10$), and those determined of importance a priori, in a multivariable logistic regression.

Results. We enrolled a total of 261 participants; 136 in India, 125 in South Africa. The ability to contact participants steadily decreased from 90% ($n = 122$) contacted at week one to 57% ($n = 75$) contacted at six months in India and 93% ($n = 116$) at week one and 70% ($n = 88$) at six months in South Africa (Figure 1). For India, adjusted analysis revealed that texting discomfort was significantly higher in unemployed (OR 4.97, 95% CI: 1.12, 22.09) and 35+ year old (OR 1.10, 95% CI: 1.04, 1.16) participants, while significantly lower in those with higher education (OR 0.04, 95% CI: 0.01, 0.14). In South Africa, 91% of participants ($n = 114$) reported comfort with text messaging.

Conclusion. The ability to maintain contact with participants by mobile phone in India and South Africa was poor at the 6 month timepoint. While mHealth has the potential to transform HIV and TB care in endemic countries, alternative approaches may be needed for certain subpopulations, including those who are older, unemployed and with lower education.

Figure 1. mHealth Callbacks

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