**Data Analysis and Interpretation – MIXED METHODS**

**Table 1**

*Joint Display Integrating QUAN and QUAL Data*

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| **QUAN RESULT** | **QUAL Excerpts** | **Interpretation** |
| Libraries in lower-income areas more frequently engaged health providers and identified community health needs (r = .399 to .484) | "what's available through community partnerships? So what- you know, the, umm, the local county ag extensions of the University of \[XXX\] offers a lot of nutrition-type programming." (ID 103) | Both QUAN and QUAL data suggest libraries collaborate with community partners, including health providers, to determine programming. Libraries in lower-income areas appear especially likely to do this |
| Libraries in areas with more food/housing insecurity had greater involvement of stakeholders in identifying needs and priorities (r = .39 to .532) | "But it's not a common question I would say, maybe once a month or something, we might get a question like that." (ID 134) | The QUAN data shows libraries in insecure areas actively engage the community, while the QUAL suggests some libraries rarely receive direct health questions from patrons. More investigation into community engagement strategies is needed. |
| Race was correlated with discussing physical health needs (r = .407) | No clear pattern by race in qualitative samples regarding health programming decisions | The qualitative data neither converges nor diverges with the quantitative findings of a small correlation between librarian race and discussing health needs |

**Narrative Integration of QUAN and QUAL**

This mixed methods study intended to examine the ways public libraries and personnel address community health needs through programming and services. Overall, the quantitative results converged with the qualitative findings from library manager interviews. Both types of data highlighted libraries' reliance on community partnerships with health providers and agencies to shape health offerings. The degree of community engagement appears to depend in part on socioeconomic factors unique to the areas a given library serves.

In terms of convergence, the QUAN and QUAL results aligned regarding collaborating with external partners like university extensions and health non-profits. The qualitative data also reflected some of the quantitative findings on tailoring efforts to local needs. For instance, the correlations between community indicators (low-income, food/housing security) and engagement strategies mirrored interviewees' descriptions of addressing patron health requests and observable issues.

At the same time, there were some divergences in the data. While the survey found a significant relationship between librarian race and discussing physical health, the interviews did not reveal meaningful differences by race. Additionally, some librarians reported health questions as seldom occurring, while libraries serving vulnerable groups quantitatively indicated more discussion of health topics. These discrepancies may reflect limitations of the small qualitative sample or nuances across library districts. Overall, integrating the QUAN and QUAL findings provides a more complete picture of how libraries tackle community health at the leadership level. Additional research is needed to clarify some of the mixed results.

**Extra Credit**

**Table 2**

*Joint Display of QUAN and QUAL Data for Interviewed Librarians*

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| **ID** | **QUAN Results** | **QUAL Excerpts** | **Interpretation** |
| 103 | Often invites community input (4.0); Rarely solicits health provider input (2.0) | "what's available through community partnerships? So what- you know, the, umm, the local county ag extensions of the University of \[XXX\] offers a lot of nutrition-type programming." | Qualitative data reflects engagement with community partners for health programming consistent with a high community input score. Low provider solicitation score also aligns. |
| 116 | Often community planning participation (5.0); Often discusses mental health needs (4.0) | "And I attempt oftentimes to contact whoever they contact, you know, who they suggest." | High scores converge with qualitative statements on community participation and using resources to determine health programming |
| 125 | Sometimes invites community input (3.0); Sometimes discusses health needs (3.0) | "Uh, so, it kind of it kind of depends. Some of it is things that we know are going on in our community, and we reach out to organizations that can provide services or information." | Moderate QUAN scores converge with qualitative remarks on balancing community needs and partnerships. |
| 134 | Rarely community planning participation (2.0); Rarely discusses health needs (1.0)| | "We haven't really done too many health-related um... programs here at our library um... it-it-it might be something we should consider 'cause we haven't really done it." | Low QUAN engagement matches qualitative statements about limited health programming due to community location/needs. |
| 144 | Sometimes invites community input (3.0); Often discusses mental health needs (4.0) | "we\'ve been trying over the last several years to be more, you know, engaged in getting community feedback." | Moderate community input aligns with qualitative; higher mental health discussion scores also reflected |

The qualitative excerpts from the 5 interviewed library personnel generally converge with the quantitative survey results. The librarians' comments related to community partnerships, addressing patron needs, and challenges associated with their library location mirror the trends in their corresponding quantitative data on community engagement, health programming involvement, etc. Further analysis of additional interviews compared to the full survey dataset could reveal deeper insights into the convergence between manager-reported and actual health promotion practices in libraries.