Prevention of Pediatric Obesity: Focus on the First Two Years

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BACKGROUND

\begin{itemize}
\item 18.5\% of children aged 2 to 19 are obese.\textsuperscript{1}
\item Obesity rates are \textbf{disproportionately higher} in Hispanic and African American populations, and families of lower socioeconomic status.\textsuperscript{1,2}
\item The Allentown zip code 18102 has the highest childhood obesity rates (22.7\%) for LVHN’s entire population.
\item Rapid weight increases in the first 6 months of life are associated with obesity at 3 years of age.\textsuperscript{3}
\item There is a 70\% chance that a child who is overweight or obese will remain obese in adulthood, leading to chronic health conditions.\textsuperscript{4,6}
\item This study investigated whether enhanced dietary information at well visits from birth to 24 months would affect BMI.
\end{itemize}

METHODS

\begin{itemize}
\item IRB approval granted and study coordinators/key personnel trained for patient scheduling and data collection.
\item Consent obtained from parents. Infants placed in control or intervention group. Intervention group received nutrition counseling at each well visit until 2 years of age.
\item Surveys administered at baseline, 6 months, 12 months, 18 months to understand feeding practices and family dynamics.
\item Data extracted from electronic medical records (EPIC) and entered into the database REDcap. Statistical analysis using SPSS software.
\end{itemize}

RESULTS

\begin{itemize}
\item No statistical differences in 24 month BMI between research control group and intervention.
\item Statistical significance between research patients and non-study clinic control patients for 12 month weight for length average percentile and 24 month average BMI percentile.
\item There are 20 patients that still need their 2 year well visit to finish the study.
\item Study barriers included patient no-shows, scheduling limitations, and change in scheduling personnel.
\item Interventions focused only on education are ineffective against community conditions, cultural and nutrition habits, and other social determinants of health.
\end{itemize}

RECOMMENDATION

\begin{itemize}
\item Increase \textbf{community outreach} in high need areas through partnerships with community organizations and local non-profits.
\item Focus on \textbf{school-based and community-based interventions} to bring healthy foods and nutrition programming to food insecure areas.
\end{itemize}

REFERENCES


\begin{figure}
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\includegraphics[width=\textwidth]{figure1}
\caption{Research study methods and procedures}
\end{figure}

\begin{figure}
\centering
\includegraphics[width=\textwidth]{figure2}
\caption{Chart depicting comparisons in weight status categories between control group and intervention group. No statistical significance between groups.}
\end{figure}

\begin{figure}
\centering
\includegraphics[width=\textwidth]{figure3}
\caption{Chart depicting average weight for length percentiles for 6, 12, and 18 months and BMI percentiles at 24 months between combined research patients and non-study Children’s Clinic patients. Statistical significance at 12 and 24 months.}
\end{figure}