



Universidad
Rey Juan Carlos

Adquisición, práctica y adherencia
de la actividad física en niños
y adolescentes inmigrantes
en su tiempo libre: estudio
cualitativo

**Tesis
doctoral**



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Tesis doctoral

Adquisición, práctica y
adherencia de la actividad
física en niños y adolescentes
inmigrantes en su tiempo libre:
estudio cualitativo

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CERTIFICA:

Que la tesis doctoral titulada **“Adquisición, práctica y adherencia de la actividad física en niños y adolescentes inmigrantes en su tiempo libre: estudio cualitativo”**, ha sido realizado bajo mi dirección por D. Romain Marconnot y reúne todos los requisitos científicos y formales para ser presentado y defendido ante el tribunal correspondiente.

Y para que así conste a todos los efectos, se firma el presente certificado en Madrid a 27 de noviembre de 2021.

A handwritten signature in black ink, appearing to read 'D. Palacios Ceña', with a long horizontal stroke underneath.

Dr. D Domingo Palacios Ceña

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1. INTRODUCCIÓN

1.1. Actividad física: Definición y características

La actividad física, es considerada por la Organización Mundial de la Salud (OMS) como: *“cualquier movimiento corporal producido por los músculos esqueléticos y que produce un gasto energético”* (World Health Organization, 2020b) y engloba las actividades realizadas jugando, trabajando, de desplazamiento, actividades del hogar o de ocio. Pero el concepto de actividad física (AF) es mucho más amplio. Además de una dimensión biofísica del movimiento como especificado en la definición de la OMS, existe otras dos dimensiones. Una dimensión personal y una dimensión sociocultural. La primera está relacionada con la experiencia que tiene cada persona de la práctica de AF. La segunda dimensión está ligada a la propia práctica física (Devís Devís & Peiró Velert, 2001)

Con estas consideraciones, Devís Devís & Peiró Velert (2001) definen la actividad física como:

“Cualquier movimiento corporal intencionado que se realiza con los músculos esqueléticos, resulta en un gasto de energía y en una experiencia personal, y nos permite interactuar con los seres y el ambiente que nos rodea.” (p.299)

Por lo tanto, se podría incorporar como AF, actividades que incluyen andar, correr, nadar, esquiar, pasear o tareas realizadas en el hogar como limpiar, ordenar, etc.

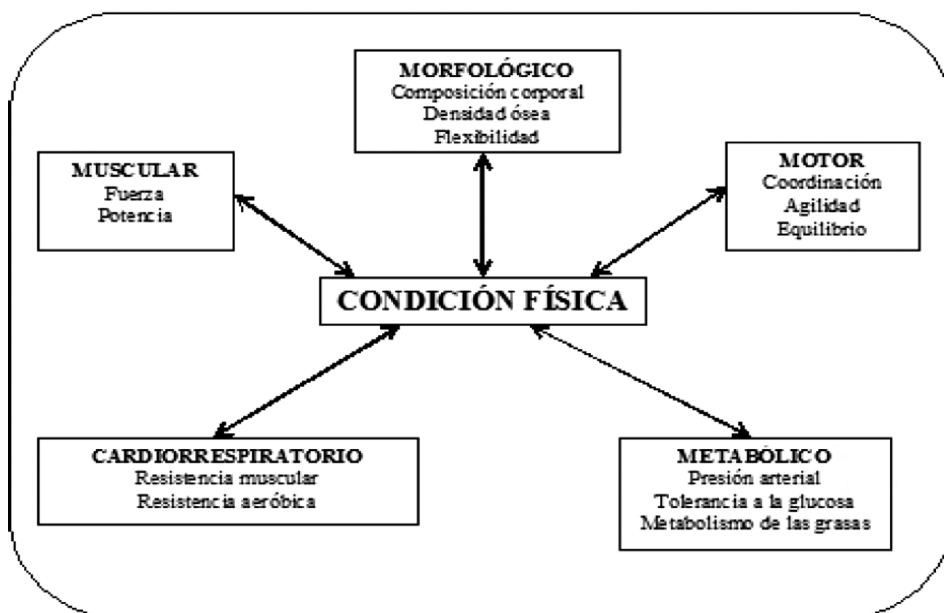
Pero es preciso aclarar, que no se puede confundir la AF con el ejercicio físico (EF), ya que este último es una actividad reglada, estructurada, organizada, repetitiva y con un claro objetivo de mejora o mantenimiento de las capacidades físicas del individuo (Dasso, 2019). Por lo tanto, el EF es una subcategoría de la AF. El objetivo del EF es la mejora de uno o más de los componentes de la condición física, además el EF es un medio para alcanzar una mejora de la condición física.

La condición física (CF) está definida como el conjunto de las capacidades o cualidades físicas (como por ejemplo la fuerza, resistencia, flexibilidad y velocidad) de un individuo. El nivel de estado de la CF está formado por todas las funciones y estructuras que intervienen en la AF. La mejora de la CF se realiza a través del acondicionamiento físico, es decir el trabajo de una o varias capacidades físicas para la mejora del sistema músculo- esquelético, sistema cardio-respiratorio, psico-neurológica o endocrino (Castro-Piñero et al., 2010; Rosa-Guillamón, 2017; Ruiz et al., 2011). Así, un nivel alto de CF implica tener una respuesta fisiológica optima de todas ellas.

Bouchard & Shephard (1994), autores de referencia del estudio sobre la condición física y sus factores, presentaron el esquema de los principales componentes de la CF (ver figura 1).

Las capacidades físicas se pueden dividir en 2 categorías diferentes. Por un lado, las capacidades relacionadas con el rendimiento deportivo y otras relacionadas con la salud. Las capacidades físicas relacionadas con la salud son definidas por Ruiz et al. (2011) por la capacidad aeróbica, la capacidad músculo-esquelética, la capacidad motora y la composición corporal. Esos componentes de la CF relacionada con la salud se pueden ver afectados favorable o negativamente por el nivel de AF de cada persona. Las personas que realizan AF tienen a mostrar una mejor condición y rendimiento físico, resisten mejor al estrés, presentan mejor ánimo, y se perciben ellos mismos con un mejor estado de salud y de calidad de vida (Andersen et al., 2017; Granger, Williams, Di Nardo, Harrison, & Verma, 2017; Rosa-Guillamón, García-Cantó, Rodríguez-García, & Pérez-Soto, 2017; Tereza Araújo & Dosil, 2016). Ruiz et al. (2011) demuestran que existe una relación entre la salud física y los niveles de fuerza muscular, principalmente en los niños con sobrepeso y obesidad. Una aptitud muscular baja en la adolescencia es un signo de un perfil metabólico bajo que se relaciona a la edad adulta con un incremento de enfermedades no-transmisibles (ENT) y un mayor riesgo de mortalidad prematura (Perna

Ilustración 1. Principales componentes y factores de la condición física Según Bouchard & Shepard extraído de Rosa-Guillamón (2017)



et al., 2016; Ramírez-Vélez, Meneses-Echavez, González-Ruiz, & Correa, 2014). La disminución de la condición física está asociada a un aumento del Índice de Masa Corporal (IMC) en los niños y adolescente (Utesch, Dreiskämper, Strauss, & Naul, 2018). Además, la obesidad juvenil conlleva a un desarrollo precoz de patologías crónicas características de edades más avanzadas como puede ser la hipertensión arterial (Marrodán Serrano et al., 2013) o el hígado graso (Woo Baidal et al., 2018). Friedemann et al. (2012) afirman que un niño obeso tiene más posibilidades de ser un adulto obeso con patologías relacionadas. Las consecuencias de la obesidad infantil o juvenil, no solo trae consecuencias al nivel de la salud física y metabólica, también como afirma Brixval et al. (2012) consecuencias psicosociales como puede ser la exclusión o el acoso escolar. Por lo tanto, una AF regular es un factor determinante en la prevención y el tratamiento de la obesidad infantil y de los riesgos metabólicos asociados (Kuzik et al., 2017; Moore et al., 2017).

1.2. Beneficios de la Actividad Física

Una AF regular y de intensidad moderada o elevada, como hacer bicicleta o correr es beneficiosa por la salud personal. Contribuye a la prevención de las ENT como pueden ser las enfermedades cardiovasculares, el cáncer o la diabetes. También reduce los síntomas de depresión y ansiedad. Permite una mejora de las capacidades de reflexión y aprendizaje, garantiza un crecimiento y desarrollo sano en los jóvenes y previene los riesgos de mortalidad prematura (World Health Organization, 2020b).

Los beneficios de la AF son superiores a los riesgos relacionados como accidentes y lesiones durante su práctica (INSERM, 2019). Según la OMS (World Health Organization, 2018) una AF regular reduce el riesgo de sufrir hipertensión, cardiopatía, diabetes de tipo II, cáncer de mama o accidente cerebrovascular. También la AF ayuda en el control del peso corporal, reduce la hipertensión arterial y mejora el funcionamiento muscular y articular del cuerpo tanto en los jóvenes como en las personas mayores (World Health Organization, 2020b).

Para tener beneficios para la salud, la práctica de AF se tiene que realizar a diferentes niveles de intensidad; intensidad baja, intensidad moderada e intensidad vigorosa. Estos niveles de intensidad están formados por conceptos como el Índice metabólico (MET) o equivalente metabólico. Este último mide la intensidad de la AF y el consumo energético.

Se define el MET en función del metabolismo base del organismo, en reposo. La escala va desde el 0,9 MET (en sueño) hasta 18 MET (carrera a 17,5km/h). La OMS (World Health Organization, 2020b) define una actividad física moderada entre 3 y 6 MET, es decir entre 3 y 6 veces el metabolismo en reposo, y

una actividad vigorosa a más de 6 MET. Una actividad insuficiente se considera entre 1,6 y 3 MET, es decir inferior a 3 veces el metabolismo de reposo. Toda actividad inferior a 1,6 MET es considerada como actividad sedentaria (ANSES, 2016).

La OMS (2020) preconiza unos tiempos mínimo de AF por edades. En los adultos mayores de 18 años, se recomienda entre 150 min y 300 min de actividad aeróbica moderada o entre 75 min y 150 min de actividad aeróbica vigorosa por semana para mantener unos beneficios sustanciales para su salud.

En el caso de los jóvenes de entre 5 y 17 años, la OMS (World Health Organization, 2020b) recomienda uno 60 minutos de actividad aeróbica moderada o vigorosa diaria, además de realizar al menos 3 días por semana actividades que fortalezcan los músculos y los huesos. Se entiende como AF moderada o vigorosa, toda actividad física, donde el esfuerzo esta superior a 6 veces el propio esfuerzo en unas condiciones habituales. Para ser más preciso, se entiende que un niño de menos de 17 años que practica patines, patinetes, bicicleta o caminar rápido está haciendo una AF moderada. Un mismo joven que practica carrera, saltos, bicicleta intensa, artes marciales o cualquier deporte (Football, Baloncesto...) está practicando AF vigorosa (US Department of Health and Human Services, 2008). Al opuesto de la Actividad física esta la inactividad. Todavía, según la OMS (2020), un niño está considerado inactivo físicamente, cuando pasa más de 60 minutos sentado.

Una prevención precoz del sobrepeso o de la obesidad, de un nivel bajo de AF o de una baja condición física en los jóvenes es de gran importancia, porque la AF total está asociada favorablemente a los indicadores de salud física, sociopsicológica y cognitiva en los niños de 15 a 17 años (Utesch et al., 2018). Además, Augste et al. (2015) demuestran que la AF tiene una influencia positiva directa sobre la condición o forma física de los jóvenes que cursan educación primaria.

1.3. Sedentarismo e inactividad

Más de 3020 investigaciones de todo el mundo han sido publicadas entre 2010 y 2020 (Fang, Jing, Chen, Wu, & Wan, 2021) sobre el sedentarismo, mostrando el interés sobre su prevención al ser un problema de salud pública global que atrae la atención de todo el mundo. En relación con el sedentarismo y el nivel de actividad de los jóvenes y adolescentes, Guthold, Stevens, Riley, & Bull (2020) describieron como el 81,03 % de los jóvenes en edad de escolarización (11-17 años) eran poco activos. En Europa este dato alcanza porcentajes del 82 % de los jóvenes adolescentes de entre 11 y 17 años (World Health Organization, 2016). En España, son el 76,6 % de los adolescentes que son sedentarios (Guthold, Stevens, Riley, & Bull, 2020). Pero

existe una diferencia muy notable entre sexos. En el mismo trabajo (Guthold et al., 2020), los varones de entre 11 y 17 años alcanzan cifras del 69,8% de sedentarismo, frente al 83,8% de las chicas de la misma edad. En España, según un estudio del Ministerio de Sanidad Consumo y Bienestar Social (2017) sobre el sedentarismo en el tiempo libre de los jóvenes, el 30 % de los jóvenes mayores de 14 años admitían ser sedentarios en su tiempo libre. En el caso de los jóvenes varones se alcanzaban cifras del 23,16 %, y en las mujeres el 37 % de las chicas de la misma edad se declaraban sedentarias.

A nivel de sobrepeso u obesidad, una de las consecuencias de la inactividad o del sedentarismo, más del 18 % de la población mundial de edad comprendida entre 5 y 19 años tiene sobrepeso u obesidad (World Health Organization, 2021b) lo que representa más de 340 millones de niños. En España, Aranceta-Bartrina, Gianzo-Citores, & Pérez-Rodrigo (2020) describen como el 34,1 % de los jóvenes de entre 3 y 24 años tienen sobrepeso, y que el nivel de obesidad se sitúa entre el 8,6 % y el 10,3 %. Estas cifras sitúan a España en el cuarto puesto europeo a nivel de sobrepeso y obesidad, detrás de Grecia, Italia y Chipre (WHO Regional Office for Europe, 2021). Sánchez-Cruz, Jiménez-Moleón, Fernández-Quesada, & Sánchez (2013) estimaban que el exceso de peso de los niños con una edad comprendida entre 8 y 13 años era de 45 %, mientras que para los jóvenes de entre 13 y 17 años era del 25.5 %.

1.4. Inactividad física y riesgo de mortalidad

Las personas que no tienen un nivel suficiente de AF, según la OMS, presentan un riesgo de mortalidad superior al 20 % o 30 % más que las personas con un nivel de AF suficiente (World Health Organization, 2018). Thorp et al. (2011) y Wilmot et al. (2012) demostraron la relación directa entre el sedentarismo y la mortalidad en general. Una revisión sistemática publicada en 2018 (Patterson et al., 2018), demuestra que el tiempo sentado es inversamente proporcional a los riesgos de mortalidad. Es decir que más tiempo una persona pasa sentada, más riesgos de mortalidad tiene. En 2014, Katzmarzyk, en su estudio de cohorte sobre 16586 canadienses de 18 a 90 años, durante un seguimiento de 12 años, mostraba como las personas físicamente inactivas, que pasan más tiempo de pie, tenían menos riesgos de mortalidad que las personas físicamente inactivas que pasan mucho tiempo sentados. Existía menos riesgo de mortalidad en sedentarios que permanecen de pie respecto a ser sedentario sentado. La disminución de mortalidad varía entre el 21 % al 35 % respectivamente para las personas sentadas y las personas de pie. En Estados Unidos, el estudio de cohorte de 3 años NHANES 2003-2004 (Koster et al., 2012), demostró en 1906 personas, con medición de actividad por acelerómetro, que el factor de riesgo de mortalidad se multiplicaba por 5 en las personas más sedentarias (más de 73 % del tiempo despierto dedicado a actividades sedentarias).

Benjaminsen-Borch et al. (2011) se centraron en 66136 mujeres de entre 30 y 70 años en un periodo de hasta 11 años, mostrando como los riesgos de mortalidad son mayores en las mujeres que practican poca AF. Este riesgo se puede multiplicarse hasta un 2,35 más en las mujeres menos activas. Los autores señalan que 11,5 % de la mortalidad prematura es por causa de falta de AF. (Gulsvik et al., 2012) describen como existe una disminución de hasta 37 % de mortalidad en las personas que practican una AF elevada, y un 25 % menos en las personas que practican AF moderada frente a las personas que no practican suficiente AF.

(Ekelund et al., 2019) en su meta-análisis sobre los efectos del sedentarismo en el riesgo de mortalidad en general, con un total de más de 36000 participantes sobre un tiempo medio de 5,8 años de seguimiento, confirman que cuanto más aumenta el tiempo de sedentarismo, más aumentan los riesgos de mortalidad. Concretamente de entre 28 % y hasta 163 % más de riesgo de mortalidad cuanto más tiempo se pasa sentado, en función del estatus socioeconómico, la edad, el IMC o el sexo. En este estudio Ekelund et al. (2019) describen como una disminución de la mortalidad en las personas que practican una AF era independientemente de la intensidad o del tiempo de dicha actividad. Es decir que existe una reducción de los riesgos de mortalidad, a partir del momento que una persona realiza una AF ligera, incluso en pequeñas proporciones. La disminución de los riesgos de mortalidad es de hasta 52 % para las personas menos activas y hasta 73 % para las personas más activas.

1.5. Efecto de la Actividad Física sobre las enfermedades no transmisibles.

La OMS (2020b) preconiza la práctica de AF como herramienta para luchar contra el sedentarismo y reducir la mortalidad causado por las ENT y aumentar la esperanza de vida. Lee et al. (2012) calculan que, si se reduce la inactividad física de entre 10 % a 25 %, se podría reducir de entre 533000 hasta 1,3 millones de muertes al año. La eliminación de la inactividad física reduciría entre 6 % y 10 % de las principales ENT, como las enfermedades cardiovasculares, la diabetes tipo II, o los cánceres de mama y de colon (World Health Organization, 2021a).

La falta de AF aumenta considerablemente las ENT, que son uno de los factores más importante de muertes prematuras en el mundo (World Health Organization, 2021a). Más del 70 % de las muertes en el mundo son a causa de las ENT (World Health Organization, 2021a), destacando cuatro grupos principales como las enfermedades cardiovasculares, el cáncer, las enfermedades respiratorias y la diabetes (World Health Organization, 2021a).

La AF representa un elemento importante para prevenir o retrasar la ocurrencia de la diabetes de tipo 2 (American Diabetes Association, 2015; Li et al., 2014). Varias meta-análisis (Kodama et al., 2013; Sluik et al., 2012) incluyendo cohorte importante de pacientes se han interesado a los efectos de la AF sobre la mortalidad por causa de la diabetes de tipo 2. Estos estudios muestran una relación lineal inversa entre la cantidad de AF y la mortalidad a causa de la diabetes de tipo 2. Los pacientes que practican una AF moderada o elevada tienen menos riesgos de padecer mortalidad (-20 a -50%) que los pacientes que no practican AF. En el estudio de Sluik et al. (2012) el grupo que presentaba la reducción de mortalidad más importante era, o bien los pacientes que tenían una AF moderada o bien un tiempo de ocio activos de los más elevados. En otro estudio (Li et al., 2014), un programa de intervención de AF de 6 años en paciente con intolerancia a la glucosa permitió reducir la incidencia de mortalidad por causa de la diabetes de tipo 2.

Una AF regular de intensidad moderada o elevada está asociada a una disminución del 20% hasta 50% de los riesgos de patologías coronarias y de hasta el 60% de accidentes vasculares (Lee et al., 2014; Wanner et al., 2014). Oldridge (2012) en su meta-análisis con 13824 pacientes incluidos en un programa de readaptación cardiaca, mostraban resultados donde se reducía hasta 30% la mortalidad de origen cardiaca. (Tikkanen, Gustafsson, & Ingelsson, 2018) muestra que un alto nivel de aptitud cardiorrespiratoria se asocia con una disminución de hasta 49% menos de riesgos de enfermedades coronarias y hasta un 60% menos de riesgos de fibrilación auricular. En este estudio (Tikkanen et al., 2018), los autores mostraron como en los niveles más altos de fuerza de agarre, de AF y de capacidad cardiorrespiratoria permiten una disminución de los riesgos de enfermedades cardiovasculares.

En la prevención de los canceres, la práctica de una AF está asociada a una disminución de 25% de los canceres de colon (Boyle, Keegel, Bull, Heyworth, & Fritschi, 2012; Friedenreich, Neilson, & Lynch, 2010) y de 27% de los canceres de pecho (Lynch, Neilson, & Friedenreich, 2011). La reducción del riesgo de cáncer de colon es equivalente con una AF profesional, de ocio o doméstica. Con un aumento de 30 min/d de AF de ocio, la disminución de riesgos de cáncer de colon ha sido estimada en un 12% (INSERM, 2019; World Cancer Research Fund & American Institute for Cancer, 2011). La disminución de riesgos de cáncer de pecho ha sido confirmado por (Wu, Zhang, & Kang, 2013) pero en proporción inferiores, igual a 12% en las mujeres que tienen los niveles más altos de AF de ocio. Esa reducción de riesgos de cáncer de pecho ha sido confirmada en todos los tipos de AF, pero en proporciones diferentes. Las AF de ocio o domesticas reduce hasta 21% los riesgos, comparado con las AF ligadas a los transportes (andar, bici) hasta 18% y las AF ligadas a la actividad profesional hasta un 13% de disminución (Lynch et al., 2011; Wu et al., 2013).

En las enfermedades osteo-articulares, también se evidencia mejoras de la masa ósea. La práctica regular de AF con impacto (carrera, saltos, por ejemplo) permitiría una aumentación significativa de la masa y densidad ósea en los jóvenes, sobre todo si esa AF está practicada en la pre-pubertad o en la pubertad (Behringer, Gruetzner, McCourt, & Mester, 2014). En mujeres durante la menopausia (Howe et al., 2011; Kelley, Kelley, & Kohrt, 2012) las actividades de impacto combinada con un fortalecimiento muscular son necesario para limitar los riesgos de fracturas.

Según los datos de una investigación publicada en 2016 (Aragonés, Fernández Navarro, & Vega de Seoane, 2016) para España, utilizando la Encuesta Europea de Salud del 2014, se identifica una reducción de los riesgos de padecer una ENT como cáncer de colon, cáncer de pecho, enfermedades cardiovasculares o diabetes de tipo 2 al practicar de manera ocasional, o regular una AF frente a personas que son sedentarios. Los riesgos de padecer hipertensión arterial se reducen un 11 % en las personas que practican de manera ocasional una AF y un 39 % para las personas que realizan de manera regular AF (Aragonés et al., 2016).

Otros aspectos clave, es el efecto de la AF sobre enfermedades como la depresión, la ansiedad o el estrés psicológico (Asmundson et al., 2013; Lindwall, Gerber, Jonsdottir, Börjesson, & Ahlborg, 2014; Mollart, Skinner, Newing, & Foureur, 2013)

En Europa, la investigación HELENA (Cristi-Montero et al., 2019), muestra que los niños que tienen una AF extraescolar mejoran sus condiciones cardiorrespiratorias por encima de los valores de referencia de los adultos, y también mejoran la salud mental. Además, las AF no solamente tiene beneficios sobre la salud física, también sobre la salud psicológica, donde reduce la depresión, la ansiedad o las fobias (Biddle & Asare, 2011; Biddle, Ciaccioni, Thomas, & Vergeer, 2019; Hale, Colquhoun, Lancaster, Lewis, & Tyson, 2021; Spruit, Assink, van Vugt, van der Put, & Stams, 2016). Los resultados sugieren que una intervención en base a una práctica de AF son principalmente útiles para la mejora de la calidad de vida y el bien estar psicológico destacando un impacto positivo en la autoestima. Pero también, estudios previos (McClure, Tanski, Kingsbury, Gerrard, & Sargent, 2010; Moksnes & Reidunsdatter, 2019) muestran que ese aumento de autoestima es mayor en los niños que en las niñas, por lo que hay una diferencia de género que hay que tener en cuenta. La AF no solamente previene las apariciones de enfermedades psicológicas como la depresión, pero también muestran que la práctica de AF ayuda a los jóvenes que tienen alguna enfermedad depresiva a mejorar su enfermedad (Axelsdóttir, Biedilæ, Sagatun, Nordheim, & Larun, 2021). Las AF, en gran parte de ellas, se pueden o se practican al aire libre en entornos naturales. Estudios previos (Coventry et al., 2021; Yang et al., 2021) afirman que los espacios verdes y naturales son beneficiosos en

el control y la mejora de las enfermedades psicológicas. Además, mejora la concentración de las personas y permite de este modo poder mejorar el rendimiento escolar de los niños (Barbosa et al., 2020; Páez-Maldonado et al., 2020; Wassenaar et al., 2019).

1.6. Factores facilitadores o barreras a la práctica de Actividad Física

Para entender la AF, es importante conocer cuáles son los factores que facilitan o dificultan que los niños y adolescentes puedan realizar AF. Estudios previos (Bhatnagar, Shaw, & Foster, 2015; Bridger Staatz et al., 2021; Hatfield & Chomitz, 2015; Jepson et al., 2012; Neshteruk, Nezami, Nino-Tapias, Davison, & Ward, 2017; Trigwell, Murphy, Cable, Stratton, & Watson, 2015) identifican una amplia variedad de barreras o facilitadores a la hora de tener una práctica adecuada de AF lo que influiría sobre la salud y bienestar de los niños y jóvenes. Los principales factores son el contexto social y comunitario, la cultura, la inmigración y el entorno escolar en el que viven los jóvenes (Bhatnagar et al., 2015; Bridger Staatz et al., 2021; Hatfield & Chomitz, 2015; Jepson et al., 2012; Neshteruk et al., 2017; Trigwell et al., 2015).

El contexto social es el factor que afecta directamente y de forma prolongada la inactividad física. Iguacel et al. (2018) y Puolakka et al. (2016) señalan como un nivel socioeconómico bajo en la niñez está asociado a un mayor riesgo metabólico en los niños. La obesidad está más presente en los hogares económicamente desfavorecidos debido a que la falta de recursos económicos puede tener consecuencias sobre la calidad de la alimentación (Vargas, Stines, & Granado, 2017). Las familias se dirigen hacia alimentos más baratos y con valores calóricos superiores a tratarse generalmente de alimentos súper procesados. La alimentación poco saludable y la conducta alimentaria tiene consecuencia sobre la obesidad infantil (Sahoo et al., 2015). A modo de ejemplo, los escolares con sobrepeso u obesidad desayunan con menos frecuencia que los demás y sobre todo comen con más regularidad fuera de casa (Blondin, Anzman-Frasca, Djang, & Economos, 2016; García-Solano et al., 2021).

Otro factor social y comunitario se puede relacionar con el exceso de uso de pantallas en los jóvenes (Oswald, Rumbold, Kedzior, & Moore, 2020). Cada vez más, las pantallas están presentes en sus vidas, y el porcentaje de jóvenes que tienen aparatos electrónicos no para de aumentar (INE, 2020). En 2011, 70,3% de los hogares españoles disponían de algún ordenador y 16,3% disponían de Tablet. En 2020, estas cifras han subido hasta 81,4% y 58,4% respectivamente. Por lo que corresponde del acceso a los móviles, los jóvenes de entre 10 y 15 años son 69,5% en tener un móvil en 2020, frente al 66,7% en 2010. También aumento el uso de internet por parte de

los jóvenes. Si en 2010 eran 87,3% en hacer uso de internet, en 2020, son 94,5% en utilizarlo con regularidad (INE, 2020). Además, la presencia de esos aparatos electrónicos es mayor en los jóvenes con sobrepeso u obesidad (García-Solano et al., 2021). La utilización cada vez mayor de pantallas en el tiempo libre de los alumnos, conduce a menor actividad física (De Jong et al., 2013), mayor exposición a la publicidad de alimentos no saludables o a un consumo excesivo de alimentos por distracción mientras utilizan dichos dispositivos (Santaliestra-Pasías, Rey-López, & Moreno Aznar, 2013). Según Lavielle-Sotomayor et al. (2014) una gran proporción de jóvenes en países desarrollados y en vías de desarrollo ven más de cuatro horas al día la televisión, lo que representa el doble del tiempo máximo recomendado (Tremblay et al., 2016).

La barrera cultural es otro factor que influye sobre la práctica de AF. El bajo nivel de instrucción de los padres o la barrera lingüística son limitadores (Mude & Mwanri, 2016). Los estereotipos de género ligados a la cultura es otro factor cultural limitador de la práctica de AF. La existencia de una discriminación de género en la práctica de AF entre hombre y mujeres puede ser considerado como un fenómeno mundial (Althoff et al., 2017). Esas diferencias se pueden explicar por la etnicidad o la religión. Sharara, Akik, Ghattas, & Makhoul Obermeyer (2018) afirman que las familias privilegian las actividades espirituales y educativas frente a las AF de ocio. Además, Capllonch, Godall, & Lleixà Arribas (2007) describe como algunas creencias religiosas puede limitar la práctica de AF en las mujeres por aspectos ligados a la exposición de partes desnudas del cuerpo como en atletismo o la natación además de la práctica conjunta con los hombres.

La inmigración también es un aspecto en tener en cuenta como factor limitador de la práctica de AF. Pertenecer a una familia inmigrante se asocia positivamente con un descenso de la AF y un mayor riesgo de obesidad (Gualdi-Russo et al., 2014; Murer, Saarsalu, Zimmermann, & Herter-Aeberli, 2016; Sánchez-Martínez et al., 2016). Una familia inmigrante acumula las diferentes barreras anteriormente citadas como factor limitador a la práctica de AF. Las familias inmigrantes pertenecen a un nivel socioeconómico bajo, con una cultura diferente a la cultura del país acogedor y a veces con una religión diferente. En España, según los datos del INE (Reher et al., 2008), los inmigrantes son etiquetados principalmente como inmigrantes económicos, efectuando trabajos poco cualificados y encontrándose en los niveles inferiores de la escala socio económica. Trabajan en puestos de trabajo poco cualificados y con una remuneración baja y se perpetúa con largas jornadas laborales. Otros estudios realizados en España (Gonzalo-Almorox & Urbanos-Garrido, 2016; Molina-García, Queral, Adams, Conway, & Sallis, 2017), confirman que los niños y adolescentes que viven en barrios con bajo nivel socio económico son menos activos.

Ultimo factor o barrera a la práctica de AF, es la familia. Los padres y madres en el contexto familiar pueden convertirse en moduladores de la práctica de AF por parte de los jóvenes. Entre los factores dentro de las familias que limitan la AF se encuentran, la falta de tiempo por causa de trabajo, el cansancio laboral, o la conciliación familiar son unos de las causas de la falta de implicación de los padres y madres en la práctica de sus hijos (K. R. Hesketh, Lakshman, & van Sluijs, 2017). Incluso, hay madres que afirman que la influencia de los padres sobre el comportamiento saludables de los hijos es superior a la suya (Olvera, Hammons, Teran-García, Plaza-Delestre, & Fiese, 2021). Además, las familias de niños inmigrantes pueden dar una mayor prioridad a la carga académica que a la práctica de AF, al percibir que es una herramienta de ascenso social (Trigwell et al., 2015). Por otro lado, los padres y madres pueden ser facilitadores a la hora de realizar AF y tener un comportamiento saludable. Las familias que participan junto con sus hijos son un factor facilitador de una mayor práctica de AF por parte de los jóvenes (Bentley, Jago, & Turner, 2015; De Craemer et al., 2013; O'Connor et al., 2013; Suen, Cerin, & Wu, 2015). Además, la motivación, los estímulos positivos hacia la AF o la inculcación del valor e importancia de la AF son otros factores positivos que influyen positivamente en tener comportamientos saludables por parte de los jóvenes (K. D. Hesketh, Hinkley, & Campbell, 2012; O'Connor et al., 2013).

1.7. Grupos vulnerables y de riesgo de inactividad física

Los grupos sociales considerados vulnerables tienen un mayor riesgo de adoptar comportamientos poco saludables y a ser menos activos que los grupos no vulnerables (Labree et al., 2014). Lewis et al. (2012) define grupo vulnerable como grupos y comunidades con un mayor riesgo de mala salud como resultado de las barreras que experimentan a los recursos sociales, económicos, políticos y ambientales, así como las limitaciones debidas a enfermedades o discapacidades. Según la definición que propone Lewis et al. (2012) sobre los grupos vulnerables, se identifican dos grupos. Por un lado, las poblaciones de riesgo clínico, es decir poblaciones con condiciones clínicas o factores de riesgo que les hacen correr el riesgo de tener una mala salud. Por otro lado, los grupos de poblaciones socialmente desfavorecidos. Se entiende ese segundo grupo por las minorías raciales, los pobres, y personas con escaso apoyo social. De este modo, los niños de familias que se declaran con un nivel socioeconómico bajo (pocos ingresos y nivel de educación bajo) presentan un porcentaje mayor en padecer sobrepeso y obesidad que las familias con un nivel socioeconómico alto (Iguacel, Fernández-Alvira, Labayen, et al., 2018).

Otro aspecto clave, son las situaciones que, debido a los fenómenos culturales o religiosos ligados a la diferencia de género, se convierten en factores a

considerar a la hora de practicar AF (Trigwell et al., 2015). El significado dado por una determinada cultura, etnia o religión al cuerpo es imprescindible para poder programar o promover la AF. El hecho de exponer partes del cuerpo a la vista para practicar ciertas AF son culturalmente cargados de sentido, y va cambiando en función del sexo, de la edad y las responsabilidades en el seno de la familia (Langøien et al., 2017). Según Langøien et al. (2017) las exigencias religiosas sobre la manera de vestirse o las limitaciones en pasar tiempo junto al sexo opuesto pueden limitar la práctica de AF.

En España, en la encuesta de nacional de Salud del año 2017 (Ministerio de Sanidad Consumo y Bienestar social, 2017), se identifican diferencias en relación a la AF, entre las personas que nacieron en España y las personas que nacieron en el extranjero. Según esta encuesta 28,31 % de los jóvenes (15-24 años) nacidos en España admiten ser sedentarios, frente al 39,29 % de las personas nacidas en el extranjero. Varias investigaciones en otros países, como EEUU o Inglaterra, reflejar esa tendencia donde los jóvenes extranjeros practican menos AF y son más sedentarios (Bhatnagar et al., 2015; Brewer & Kimbro, 2014; Eyre & Duncan, 2013; Griffiths et al., 2013; Trigwell et al., 2015). En Inglaterra, Griffiths et al. (2013) señalan como los niños mayores de 7 años de familias extranjeras presentan un nivel de AF bajo, frente a los niños de familias británicas. Estudios previos (Besharat Pour et al., 2014; Greier, Ruedl, & Riechelmann, 2017; Hilpert et al., 2017), muestran como los niños suecos con padres inmigrantes tienen un riesgo mayor de tener una baja AF y tener sobrepeso. Hilpert et al. (2017) mostraban como los jóvenes inmigrantes eran menos activos que los jóvenes autóctonos, y que los niños/as inmigrantes tenían dos veces más prevalencia a tener sobrepeso u obesidad que los jóvenes no inmigrantes. Otros estudios previos muestran un aumento de ciertas ENT (cáncer del útero o cáncer de pecho) junto a diferentes tendencias de mortalidad y una subutilización del sistema de salud en las poblaciones inmigrantes (Bianco, Larosa, Pileggi, Nobile, & Pavia, 2016, 2017; Brzoska & Razum, 2017; Villarroel & Artazcoz, 2016). En Europa, los niños inmigrantes procedentes de algunas regiones de África, presentaban una prevalencia más elevada de sobrepeso y obesidad respecto a los niños/as de origen Europeo (Toselli, Zaccagni, Celenza, Albertini, & Gualdi-Russo, 2015).

Además, Ruedl et al. (2019) señalan que los jóvenes inmigrantes tienen a tener un nivel de condición física más bajo comparada con jóvenes autóctonos. Ruedl et al. (2019) describe como los jóvenes inmigrantes tienen un IMC más alto y el doble de riesgo de padecer sobrepeso u obesidad. Estos jóvenes pasan más tiempo frente a una pantalla que los jóvenes no inmigrantes (Hilpert et al., 2017; Iguacel, Fernández-Alvira, Bammann, et al., 2018; Kaiser-Jovy, Scheu, & Greier, 2017). La mayor utilización de las pantallas observado en los jóvenes inmigrantes tiene como consecuencia una bajada de la práctica de

AF, unido a un peor descanso y sueño nocturno (Arriscado, Muros, Zabala, & María Dalmau, 2015).

Por otro lado, los jóvenes de origen inmigrante son menos susceptibles de practicar alguna AF dentro de un club deportivo. La tasa de participación de esos jóvenes es inferior a la tasa de participación de los jóvenes no inmigrantes (Brug et al., 2012; Reimers, Jekauc, Peterhans, Wagner, & Woll, 2013; Zaccagni, Toselli, Celenza, Albertini, & Gualdi-Russo, 2017). Por el contrario, los adolescentes inmigrantes tienen más posibilidades de practicar una AF extraescolar, dentro del propio centro educativo. Los programas extraescolares deportivos son en general gratuito o accesibles económicamente, tienen lugar en el propio centro escolar o en la zona muy cercana a la escuela a la cual acuden los jóvenes, por lo que la práctica de AF extraescolares a través de programas especiales es más importante en la población inmigrante que en la población autóctona (Reimers et al., 2019). Parece que el contexto escolar proporciona un efecto protector sobre la práctica de AF en los jóvenes (Jiménez Boraita, Arriscado Alsina, Dalmau Torres, & Gargallo Ibort, 2020). La escuela tiene un papel importante en la lucha contra el sedentarismo en general, y sobre todo en algunas poblaciones vulnerables como puede ser la población inmigrante (Jiménez Boraita et al., 2020). Horenczyk & Tatar (2012) destacan el papel integrador que ofrece el contexto escolar a la población migrante, proporcionando a las familias un entorno favorable para el contacto con la cultura y la sociedad de acogida. No solamente existe los programas extraescolares en la escuela, también la asignatura de educación física (EF). La EF posee una dimensión pedagógica que no siempre tiene el deporte (Carter-Thuillier, López Pastor, & Gallardo Fuentes, 2016). Así la EF es una herramienta significativa y enriquecedor para desarrollar y alcanzar objetivos educativos interculturales (Monzonís Martínez & Capllonch Bujosa, 2015). La escuela en general y la EF en particular son ámbitos importantes para lograr la inclusión del alumnado extranjero en la sociedad utilizando el lenguaje del movimiento para lograrlo (Soler Prat, Flores Aguilar, & Prat Grau, 2012). La comunicación motriz es un lenguaje universal que ayuda a superar los obstáculos ligados al idioma que los inmigrantes pueden encontrar, por lo que la materia de EF tiene ventajas sobre otras materias educativas (Flores Aguilar, 2013). Por lo que los programas deportivos y la asignatura de EF dirigidos a las poblaciones vulnerables, son beneficiosos para crear espacios inclusivos, e interrelaciones entre las culturas, favoreciendo la integración y el bienestar del alumnado migrante (Jiménez Boraita et al., 2020).

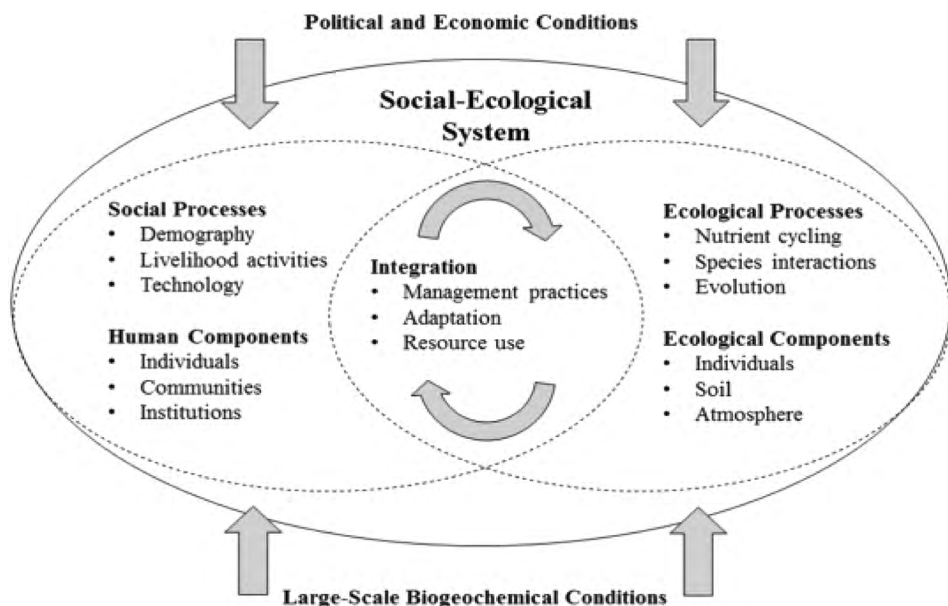
Por último, la acumulación de factores que fomentan la vulnerabilidad, como puede ser el nivel socioeconómico, la baja formación educativa de los padres, problemas de socialización, aumentan el riesgo de comportamientos poco saludables (Iguacel et al., 2016; Labree et al., 2015).

1.8. La Teoría del Sistema Socio-Ecológico y la aculturación

La práctica de la AF está integrada en un proceso complejo donde se interrelacionan múltiples factores. La Teoría del Sistema Socio-Ecológico (TSSE) (Davison & Birch, 2001) ayuda a identificar el papel de cada uno de los factores que permite o dificulta la práctica de AF.

Según la TSSE, el medio en el cual vive la persona y con el cual interactúa tiene una influencia en la adopción de determinados hábitos y comportamientos. Los niños están influenciados por el medio en el cual viven como puede ser la familia, la escuela, la comunidad y/o la sociedad. Uno de los factores más relevantes de los niños son los padres y madres, los cuales construyen el modelo a seguir por los niños y el aprendizaje se realiza a través de la imitación (Adkins, Sherwood, Story, & Davis, 2004; Cleland, Venn, Fryer, Dwyer, & Blizzard, 2005). La cultura o la comunidad es otro factor de influencia sobre los niños (Kumanyika, 2008). Las actitudes culturales son propicias a modificar la relación con la AF, como puede ser la sobreprotección de los niños por parte de las familias (Dwyer et al., 2008), dar más importancia a la escolarización frente al bienestar físico (Dwyer et al., 2008) o bien una expectativa diferente frente a la AF en función del sexo (Rothe et al., 2010).

Ilustración 2. Representación de TSSE (Virapongse et al., 2016)



Otro elemento clave, es la aculturación, es decir el proceso de adaptación a la nueva cultura, que puede conllevar la pérdida de la cultura propia. En este ámbito existen diferentes enfoques de aculturación (Carter-Thuillier et al., 2016; European Commission, 2004; Flecha García & Puigvert Mallart, 2011; Navas Luque et al., 2004), como son:

El enfoque etnocéntrico a través de la asimilación y aculturación de los inmigrantes. Se centra en la asimilación de la cultura del país de acogida, queriendo adoptar sus usos y costumbres.

El enfoque relativista a través del multiculturalismo o separación, que es el hecho de mantener su propia cultura y no querer relacionarse con el país acogedor debiendo vivir por lo tanto en espacios separados. Esta óptica, puede dar pie a una forma de racismo y segregación entre grupos poblacionales.

El enfoque comunicativo o interculturalismo que quiere que ninguna cultura este por encima de la otra, promoviendo la igualdad cultural, por lo que las diferencias culturales mantienen y desarrollan las diferentes entidades culturales, fomenta el dialogo entre culturas.

La aculturación debería ser un factor que considerar a la hora de analizar las diferencias de AF entre niños/as y jóvenes nativos y extranjeros. La aculturación está asociada a cambios de vida elegidos y otros impuestos (Alidu & Grunfeld, 2018). Según Carter-Thuillier, López Pastor, & Gallardo Fuentes (2016) existen dos enfoques a la práctica de AF con la aculturación de los inmigrantes. Un primer enfoque que ve el deporte como un campo fértil para posibles conflictos culturales entre poblaciones. Muchas veces se asume que el deporte es un elemento socializador entre culturas y puede condicionar de forma negativa las relaciones entre grupos minoritarios (Barker et al., 2013). Otro enfoque que ve el deporte como una herramienta que favorece la integración cultural entre las poblaciones. Las actividades deportivas favorecen la cohesión social entre las culturas promueven el respeto por el otro (K. C. W. Li, Sotiriadou, & Auld, 2015). Los clubes deportivos a través de la práctica de AF deportivas, podrían ser espacios que ayuden a la adquisición de capital social e integración entre poblaciones inmigrantes y autóctonas. Programas deportivos comunitarios han demostrados ser herramientas importantes en los procesos de inclusión y aculturación de las poblaciones inmigrantes (Forde, Lee, Mills, & Frisby, 2015; Theeboom, Schaillee, & Nols, 2012).

1.9. Programas y promoción de la Actividad Física

Para frenar y limitar los efectos negativos del sedentarismo y la falta de AF, la OMS a través del plan de acción mundial para la AF entre los años 2018 y 2030 (WHO, 2018) y de la estrategia para la AF en la región de Europa entre

los años 2016 y 2025 (WHO, 2015) ofrece orientaciones, acciones y ayudas a los países para promover una AF regular como medida preventiva, para reducir los factores de riesgos de la inactividad física en función de la edad, del sexo, el origen étnico y el nivel socioeconómico de las personas. Para contribuir a esos objetivos, el entorno escolar desempeña un papel importante en la promoción de la AF y sobre todo gracias a la asignatura de EF o la organización de programas o actividades extraescolares que promueven la práctica de deportes, juegos y AF (Angawi & Gaissi, 2021; Carlson et al., 2015; Hatfield & Chomitz, 2015; Loprinzi, Cardinal, Loprinzi, & Lee, 2012). Según Bauman et al. (2012) es imprescindible tener en cuenta esos diferentes ámbitos de la AF (EF, deportes extraescolares, deporte en clubes, actividades de ocio, desplazamientos activos etc.) para la elaboración y realización de programas orientados a la promoción de la AF especificados a los comportamientos de los jóvenes, el contexto en general en el cual viven y en particular para los inmigrantes. A modo de ejemplo, la participación en programas de AF organizada con control alimenticio ha mostrado efectos positivos para reducir los niveles de obesidad y sobrepeso en el ámbito escolar y educativo (Bjørnara et al., 2021; J. Lee, 2021). A nivel social, el deporte o la actividad física puede favorecer la inclusión social de las personas en general y de los jóvenes inmigrantes en particular (Makarova & Herzog, 2014; Müller & García Jerez, 2013). Programas deportivos han demostrado que los jóvenes inmigrantes que participan en programas extraescolares se integran más fácilmente en la sociedad y con los jóvenes autóctonos (Forde et al., 2015; Jiménez Herranz, López Pastor, & Manrique Arribas, 2015; Okamoto, Herda, & Hartzog, 2013). El deporte permite la transmisión de conductas y valores positivas a través de la práctica física con diverso origen cultural (Madrid López, Prieto-Ayuso, Samalot-Rivera, & Gil Madrona, 2016), por lo que la práctica física se encuentra ser un pilar importante para la lucha contra las desigualdades y para la lucha contra el sedentarismo. Sin embargo, los programas deportivos en el ámbito escolar no pueden funcionar por sí solos. Un reciente estudio cualitativo (Tibbitts et al., 2021) muestra que las intervenciones escolares a favor de la práctica de AF no funcionan fuera de ella y a largo tiempo sin el apoyo de las comunidades locales (agentes políticos) y el apoyo de los padres. Esa investigación sugiere la implicación de los agentes políticos, los padres y los medios de comunicación para tener consecuencias duraderas en el tiempo.

Por lo que no se puede olvidar de la asignatura de EF que promueve la AF, la transmisión de valores y la integración social mediante acciones educativas. La EF es importante para la adquisición de hábitos de vida activa y saludable (Consejería de Educación, 2014). Para ello la práctica deportiva tiene un papel importante para un desarrollo físico integral del alumnado. La EF contribuye a la educación en el cuidado de la salud y de la seguridad a través del conocimiento del propio cuerpo, tanto en horario de clase como

en los recreos (Martínez, Aznar, & Contreras, 2015). Eso hace de la EF una herramienta imprescindible contra el sedentarismo y la adquisición de hábitos saludables, a corto, medio y largo plazo en niños/as y jóvenes (World Health Organization, 2020b).

En España la EF es asignatura obligatoria en la enseñanza primaria y secundaria. Su carga lectiva es de dos horas semanales en todos los niveles de enseñanza a la excepción de segundo de bachillerato donde no se imparte la asignatura de EF. La asignatura de EF tiene como “finalidad principal desarrollar en las personas su competencia motriz, entendida como la integración de los conocimientos, los procedimientos, las actitudes y los sentimientos vinculados sobre todo a la conducta motora” (Real Decreto 1105/2014). Asimismo, la EF está “vinculada a la adquisición de competencias relacionadas con la salud, a través de acciones que ayuden a la adquisición y consolidación de hábitos responsables de actividad física regular y la adopción de actitudes críticas ante prácticas individuales, grupales y sociales no saludables, fundamentalmente en lo relacionado con las enfermedades de origen cardiovascular” (Real Decreto 1105/2014). En la Comunidad de Madrid, el peso horario es de dos horas semanales para la enseñanza obligatoria de secundaria (Decreto 59/2020). También existe la posibilidad para los alumnos de 1º, 2º y 3º de la ESO de cursar dos horas más de EF si esos eligen como optativa la asignatura de Deporte, siempre que los centros escolares la propongan (Decreto 59/2020). En los centros incorporados a los estudios, tres de ellos tenían como optativa la asignatura de deporte. Por lo que esos alumnos tenían hasta cuatro horas semanales de EF.

1.10. Justificación de la tesis

Debido a que la práctica de la AF incluye numerosos factores que implican perspectivas personales; como el papel de la familia como mediador y referencia de adquisición de hábitos y comportamientos, la influencia de las creencias, la etnia, la cultura, la religión, y el entorno social, dentro del barrio, y el medio escolar; es preciso realizar un estudio donde se describan y analicen las diferentes perspectivas de las familias y otros participantes de la comunidad sobre la práctica de la AF.

Para ello, la metodología utilizada debería ser cualitativa, que permite describir y analizar la perspectiva de grupo sobre determinados fenómenos basándose en su perspectiva y experiencia sobre ese fenómeno (la práctica de AF por sus hijos/as).

La presente tesis doctoral se ha focalizado en dar respuesta a esas preguntas a través de 3 estudios. El primer estudio (Marconnot et al., 2019) se centra en

describir las barreras que encuentran los jóvenes extranjeros a practicar AF a través de la perspectiva de las familias, profesores, directores de la escuela y líderes religiosos. El segundo estudio (Marconnot et al., 2020) describe la perspectiva de las familias de niños y jóvenes que están en el medio escolar, y profundiza en las barreras y limitaciones a la práctica de la AF. Finalmente, el tercer estudio (Marconnot et al., 2021) describe la perspectiva de los profesores que imparten EF en el medio escolar.

2. PREGUNTAS Y OBJETIVOS DE LA TESIS

2.1. Pregunta general de la tesis

Es preciso señalar que en las investigaciones cualitativas no existe hipótesis de partida (ni nula, ni alternativa), debido a que no se pretende buscar la representatividad, ni la extrapolación y/o generalización de los resultados (Carpenter & Suto, 2008; Creswell, 2012). Se presenta la pregunta de investigación que describe el área o áreas a indagar. En la presente tesis las preguntas que guían la investigación fueron:

¿Cuál es el significado de la AF para las familias inmigrantes con hijos/as en el medio escolar? ¿Y para otros actores de su entorno como profesores, líderes espirituales, directores de colegios? ¿Qué barreras y facilitadores para realizar AF son percibidos por las familias de esos niños/as?

2.2. Pregunta de investigación - Estudio 1

¿Qué barreras encuentran los padres, profesores, directores de escuela y líderes de comunidades a la hora de promover la AF entre los niños recién inmigrados que se enfrentan a un nuevo contexto cultural?

2.2.1. Objetivos - Estudio 1

Descubrir las barreras o dificultades que encuentran los padres inmigrantes con niños en edad escolar de poder practicar actividad física.

Conocer la perspectiva de los profesores, directores de colegios o institutos, responsables de clubes o escuelas deportivas o autoridades políticas frente a la población inmigrantes.

2.3. Pregunta de investigación - Estudio 2

¿Qué significado y que perspectiva tienen las familias de niños/as inmigrantes sobre la práctica de la AF?

2.3.1. Objetivos - Estudio 2

Describir la perspectiva de los padres inmigrantes (originarios de la región Sudamérica) respecto a la AF y su aplicación en sus hijos/as.

2.4. Pregunta de investigación - Estudio 3

¿Cuál es la perspectiva de los profesores/as que imparten EF en niños/as y jóvenes inmigrantes sobre la AF en el medio escolar?

2.4.1. Objetivos - Estudio 3

Describir las perspectivas de los profesores de EF sobre la AF impartida en las escuelas.

Identificar las barreras y facilitadores al practicar AF, percibidas por los profesores de EF.

Analizar y describir las emociones y la polaridad (aceptación-rechazo) respecto a la AF en el medio escolar, a través del análisis textual de sus entrevistas.

3. TRABAJOS PUBLICADOS

3.1. ESTUDIO 1: Recognition of Barriers to Physical Activity Promotion in Immigrant Children in Spain: A Qualitative Case Study



Article

Recognition of Barriers to Physical Activity Promotion in Immigrant Children in Spain: A Qualitative Case Study

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Abstract: Physical activity facilitates the acquisition of healthy habits from childhood to adulthood. Differences exist regarding the performance of physical activity among immigrant children compared to native Spanish children. The purpose of the study was to describe the barriers that exist for the promotion of physical activity. A qualitative case-study approach was implemented. Parents of immigrant children, teachers, a school principal, and priests were included, using purposeful sampling. Data were collected from 25 participants, via unstructured and semi-structured interviews, focus groups, and researchers' field notes. A thematic analysis was performed and ecological levels were identified. Our findings revealed the following barriers to performing physical activity: (a) the meaning of physical activity, (b) gender inequalities, (c) academic burden, (d) lack of social contact, (e) expenses and family economy, (f) lack of infrastructure and natural surroundings, (g) time constraints, (h) fear and insecurity, and (i) the reason for immigrating. These results may be used to revise the school curriculum, promoting equal opportunities for physical activity and encouraging family participation. Additionally, urban design policies should be encouraged to facilitate access to open spaces for recreation within cities.

Keywords: emigrants and immigrants; exercise; child; parents; qualitative research

1. Introduction

Physical inactivity is considered the fourth leading risk factor for global mortality [1]. On a global level [2], more than 80% of school age youth are physically inactive. More specifically, in Spain, gender differences have been documented, with girls being overall less active than boys (16.3% vs. 8.2%) [3,4]. To counteract this problem, regular physical activity is recommended as it provides numerous health benefits, such as reductions in hypertension, coronary heart disease, type 2 diabetes, breast cancer, and stroke [5]. Additionally, physical activity improves body weight control and promotes muscle and joint functioning [5], improves concentration, and enhances children's school performance [6,7].

A number of factors have been shown to influence physical activity levels in children and adolescents. These include the school environment, immigration, culture, and the social and community context where the child lives [8–13]. The school environment plays an important role in the promotion of physical activity, thanks to physical education and the organization of after school activities that promote the practice of sports, games, and other physical activities [7,11,14]. In Spain,

the 2012 national health survey [4] documents differences between people who were born in Spain and those who were born abroad but subsequently immigrated to Spain. For people over the age of 15, 43.8% of those born in Spain (i.e. the native population) were sedentary, compared to 48.3% of people born abroad (i.e. the immigrant population) [4]. This finding is supported by previous studies [9,10] that show that children of foreign parents are less physically active.

Ethnicity and culture are important determinants with regard to the performance of physical activity in immigrant children. In a study of multi-ethnic parents' views of children's physical activity in North West England, Trigwell et al. [10] reported that on an environmental level, barriers to physical activity included safety concerns, and both a lack of resources and lack of access. Additional barriers were noted for ethnic groups with a Muslim faith (Asian Bangladeshi, black Somali, Yemeni), who reported a lack of culturally appropriate physical activity opportunities for girls. In addition, the perspective of immigrant parents regarding physical activity may condition the performance of the same in their children. For example, parents can positively influence their offspring and act as role models, by providing emotional support, economic resources (covering expenses), and by providing transportation with their car [7,12]. In contrast, parents may also limit their child's physical activity when they perceive that insufficient safety conditions are available for the performance of physical activity [7,10,13], or when they feel that the curricular content of the child should be oriented towards mental-cognitive training as opposed to physical education [15].

Where an immigrant child lives also impacts their level of physical activity. Aspects such as the presence of a means of transport, sports centers, the level of safety and crime in the neighborhood and the presence of parks are all relevant when performing physical activity, via games and sports, and/or allowing children to walk to school on their own [7,12,15]. Lin et al [16], in their study about neighborhood social environments and children's independent mobility, described how children with parents who perceived their neighborhood as being safe and more cohesive, and who lived closer to their child's school, were more likely to allow them to travel to school unaccompanied. For New Zealanders, European, Māori, Samoan, and other Pacific parents in Australia [16], and also for Asian minority parents in London, and Turkish minority parents in Germany [17], security, danger, and crime were common concerns that impacted allowing their children to go out alone.

However, these aforementioned factors do not act independently of each other. Indeed, certain environments (social and physical environments) and policies, can make a community and its environment either more favorable or more adverse toward the promotion of physical activity [18]. To better understand this relationship between individual and environmental factors, ecological models [18] focus on the relationship between people and their physical and sociocultural environments and show that environmental contexts are predictors of health behaviors, such as physical activity [18]. Ecological models incorporate a wide range of influences at multiple levels. Levels of variables or dimensional studies included in ecological models of physical activity include intrapersonal (biological, psychological), interpersonal/cultural, organizational variables, or those related to the physical environment (built, natural), and policy (laws, rules, regulations, codes) [18]. Ecological models are particularly useful in assisting research and practice when applied to a specific behavior since unique environmental and policy factors may influence each behavior [2]. Ecological models identify factors and design interventions to influence multiple levels, including individuals, social environments, organizations, built environments, and policies, in order to achieve population improvements in public health [18].

Despite accumulating evidence of factors that promote physical activity among immigrant children, there is little research on the parents' perspective and that of other physical activity stakeholders (teachers, community leaders). In Spain, a gap exists in the identification of barriers and/or difficulties for the promotion of physical activity, both from the parents' perspective and that of the members of the social and community environment, such as teachers, school principals, and social community leaders.

The purpose of our study was to describe barriers for the promotion of physical activity, perceived by parents, teachers, a school principal, and social community leaders. The question that guided our study was: What barriers do parents and teachers encounter when promoting physical activity among recently immigrated children who face a new cultural context?

2. Materials and Methods

The guidelines for conducting qualitative studies established by the consolidated criteria for reporting qualitative research [19] and the Standards for Reporting Qualitative Research (SRQR) [20] were followed. Qualitative methods are useful for understanding the beliefs, values, and motivations that underlie individual health behaviors [21]. Furthermore, qualitative studies have been used to study parents' perceptions of physical activity and to identify strategies to incorporate into the prevention of childhood diseases [22]; to explore the links between parents' and children's perspectives on culture and healthy lifestyle behaviors, such as physical activity [10,22]; and to examine social neighborhood environments and children's mobility [16], and the process for increasing physical activity among elementary-aged children [23]. The design and manuscript structure were inspired by qualitative studies reported by Palacios-Ceña et al. [24].

2.1. Study Design

A qualitative descriptive case study with embedded units was conducted [21,25]. A case study may be formed of different units, which help to describe a phenomenon. These units may be different participants from different contexts and places who are only connected by the phenomenon under study [21,25,26]. In this study, the phenomenon under study was the barriers for the promotion of physical activity in immigrant children, perceived by different participants, including parents, teachers, a school principal, and social community leaders.

2.2. Context

This study was conducted in the city of Alcorcón (Madrid, Spain), with a population of 175,000 inhabitants in the year 2017. The reported immigrant population rate of Alcorcón was 11.9% in 2017, compared to an average 13% in the community of Madrid [27]. The reported population of children between four and 15 years of age in 2014 was 17,765, of which 1,883 were foreigners, representing 10.5% of the child population. We reached a consensus to include participants from two contexts: (a) the school environment, by including two educational centers (EC) from Alcorcón; and (b) the social-community environment via the inclusion of two Catholic parishes (CP) of Alcorcón.

2.3. Participants

We included all those who met the inclusion criteria and who participated in the promotion of physical activity among immigrant children at the school and in the social context.

Inclusion Criteria

- Parents: (a) living in Alcorcón (Spain) during the study, (b) who were not born in European Union countries, (c) who had children between seven and 16 years of age in the Spanish education system, and (d) whose children had been born in their country of origin.
- Teachers: (a) who at the time of study were actively working at an educational center, and (b) with over four years' experience in teaching.
- The principal of a public, private, or charter school: (a) who, at the time of the study, was actively working at an educational center, and (b) with more than four years' experience in teaching.
- Leaders of a community: people with a relevant responsibility post in an organization, or institution with social impact in the community where the parents lived. In this case, these were religious leaders (i.e., Catholic priests).

2.4. Sampling Strategies

A purposeful sampling strategy was employed [21], which involved deliberately selecting participants. In this case: people who participated in physical activity promotion for immigrant children in the school context, and/or the social context [21,25]. We contacted two EC and 10 teachers who taught children between 10–14 years of age, along with the school principal. They put us in touch with parents who met the inclusion criteria, of whom five agreed to participate in the study. Additionally, contact was made with the principals of two CP, who put the researchers in touch with immigrant parents who met the inclusion criteria, of whom seven agreed to participate in the study. Also, two priests who directed activities for the promotion of sports and cultural activities with the immigrant families agreed to participate in the study. Cumulatively, 25 participants were included in the sample and none withdrew from the study (Table 1).

Table 1. Sociodemographic data of participants.

Participants	Sociodemographic Data
Parents	Participants: 12 (4 women) Mean age: 47.4 ± 7.4
Teachers	Participants: 10 (5 women) Mean age: 37.6 ± 7.0 Years of teaching experience: 15.3 ± 7.6
School Principals	Participants: 1 (man) Age: 51 Years of teaching experience: 30
Community Leaders (Priests)	Participants: 2 (men) Mean age: 44.5 ± 13.4

2.5. Data Collection

Data were collected from November 2017 until May 2018. The objective of this case study was to obtain an in-depth, multi-perspective holistic enquiry entailing the need for multiple data sources and multiple data collection tools (Table 2) [21,26]. The interviews and focus groups were conducted in Spanish and subsequently translated.

Table 2. Data collection process.

Data Collection Phase	Data Collection Tool	Participants
1	7 unstructured interviews + 7 researcher field notes	2 parents, 2 teachers, 2 priests, 1 principal
2	2 focus group + 2 researcher field notes	10 parents, 8 teachers
3	11 semi-structured interviews + 11 researcher field notes	5 parents, 4 teachers, 1 principal, 1 community leader ¹

¹ Parents and teachers were obtained from phase 2 and the school principal and community leader were obtained from phase 1.

2.5.1. Unstructured Interviews

Unstructured interviews were conducted first with participants 1–7. The interview started with an open question: “What is your experience with physical activity with children?” Thereafter, we listened carefully, noted the key words and topics identified in the participants’ responses and used their answers to ask for and clarify the content [21]. In this way, relevant information was collected from the perspective of the participants. A first analysis was performed on the unstructured interviews of participants 1–7. This analysis revealed relevant topics that required further study, thus making it necessary to include a second stage of data collection.

2.5.2. Focus Groups

The second stage (participants 8–25) consisted of two focus groups (see Table 2) which were based on a question guide designed to gather information regarding specific topics of interest (Table 3) [21].

Table 3. Focus group question guide.

Phase	Contents	Time (Min)
Moderator welcome	Welcome, explanation of study aims, process of the session and rules.	5–10
Opening questions	Participants were asked about their experience with physical activity in children: Could you tell me your experience with physical activity in children? The question was centered on aspects of physical activity promotion and management:	10–20
Introductory and transition questions	What promotion activities did you perform? What activities were performed for the management of physical activity? Questions were posed once more on the basis of prior participant responses in order to go into greater depth regarding areas such as: Teacher–children relationships: Do you think the relationships between teachers and children may influence the promotion and management of physical activity? Parent–children relationships: Do you think the relationships between parents and their children may influence the promotion and management of physical activity?	10–30
Key questions	Development of physical activity programs in the school: What is your experience with programs in the school? How are these developed? How do parents’ and/or teachers’ interventions contribute towards promoting and maintaining physical activity? The moderator performed a brief summary of the contents covered.	20–40
Closing remarks	The participants confirmed whether the summary was correct and were given the opportunity to add to/modify their statement.	10–15

Focus groups (FGs) were conducted to examine different perspectives within the same group, to acquire an understanding of the problems faced by the group, and to facilitate the identification of values and norms [21,28]. In total, two FGs (See Table 2) were conducted, and each FG comprised between 6–12 participants [21].

The FGs were conducted by a moderator following a uniform structure [21,28]. The moderator posed questions, based on the issues raised in the discussion, in order to further explore or clarify aspects, either on an individual level or with the group as a whole [28]. Focus groups were conducted in Spanish, and were audio recorded. Permission for these recordings was sought before the recordings began. A second analysis was performed on the two focus groups. This analysis uncovered relevant topics within the same group that required further study, thus making it necessary to include a third stage of data collection.

2.5.3. Semi-Structured Interviews

This third stage included 11 participants (parents and teachers obtained from phase 2 and the school principal and community leader obtained from phase 1) and consisted of semi-structured interviews (see Table 2) designed to gather information regarding specific topics of interest from FGs Table 4) [21].

Table 4. Semi-structured interview question guide.

Research Area	Questions
Physical activity, culture and ethnic group	Do you believe that culture and/or ethnicity can influence the performance of physical activity in children? How? How do you perceive physical activity from the point of view of your culture?
Strategies for the promotion of physical activity in immigrant children	How can physical activity be promoted and fostered in immigrant children? Which strategies or interventions are most necessary?
Barriers for the performance of physical activity in immigrant children	What elements can hamper the performance of physical activity in immigrant children? What elements can do so in educational centers? What elements can do so in the community?

2.5.4. Written Documents

Field notes were taken for each of the unstructured, semi-structured interviews, and FGs (see Table 2). The researcher field notes provided a rich source of information as participants described their personal experiences, their behavior during data collection, and enabled them to note their reflections concerning methodological aspects of the data collection [21] (see Table 2).

2.6. Data Analysis

A thematic, inductive analysis was performed [21,26,29]. Literal transcriptions were drafted for each of the FGs, unstructured and semi-structured interviews, and researcher field notes [21]. The thematic analysis [29] consisted of identifying the most descriptive content in order to obtain meaningful units, and subsequently reduce and identify the most common meaningful groups. In this manner, groups of meaningful units were formed (i.e., similar points or content that allowed the emergence of the topics that described the study participants' experience) [21,29]. This thematic analysis process was performed separately upon the unstructured interviews, FGs, and semi-structured interviews. Subsequently, joint meetings were held to combine the results of the analysis. Also, the data collection and analysis procedures were discussed during these meetings. In the case of differences in opinion, theme identification was performed based on consensus among the research team members. Subsequently, the research team held joint meetings to show, combine, integrate, and identify the final themes [21].

Once the final themes were identified, the multiple levels of the ecological model proposed by Sallis et al [18] were applied to contextualize the results of the different intervention levels towards the achievement and promotion of *active living*. Active living is a broader concept that incorporates exercise, recreational activities, household and occupational activities, and active transportation [18]. The multiple levels of influence include the following: intrapersonal factors, environmental policies (building infrastructure, land use, transportation regulations), location (access and characteristics of the places where physical activity may occur), information from the environment (including a great variety of forms of communication, providing and acquiring information), the socio-cultural environment (ethnicity, religion), and the natural environment (weather, topography, open space, air quality) [18]. At the center of the model, the person's behavior towards the four active living domains is located, together with the person's perception towards the different environments and the intrapersonal characteristics of each individual. No data analysis software was used.

2.7. Quality Criteria

The recommendations for the design of case study research in health care using the DESCARTE model [26] were followed. Also, the criteria for guaranteeing trustworthiness as cited by Guba and Lincoln were followed [30]. The techniques performed and the application procedures used to control trustworthiness are described in Table 5. These methods to increase rigor are compatible with case study designs [31].

Table 5. Trustworthiness criteria applied.

Criteria	Techniques Performed and Application Procedures
Credibility	Investigator triangulation: each data source was analyzed. Thereafter, team meetings were performed during which the analyses were compared and themes were identified. Triangulation of data collection methods: including unstructured interviews, focus groups, semi-structured interviews, and researcher field notes. Participant validation: this consisted of asking the participants to confirm the data obtained at the stages of data collection.
Transferability	In-depth descriptions of the study performed, providing details of the characteristics of researchers, participants, contexts, sampling strategies, and the data collection and analysis procedures.
Dependability	Audit by an external researcher: an external researcher assessed the study research protocol, focusing on aspects concerning the methods applied and the study design.
Confirmability	Investigator triangulation and data collection triangulation. Researcher reflexivity was encouraged via the previous positioning, performance of reflexive reports, and by describing the rationale behind the study.

2.8. Ethics

This study was approved by the Clinical Research Ethics Committee of the University Rey Juan Carlos (Project identification code: 3001201702417). The study was conducted in accordance with the principles articulated in the WMA Declaration of Helsinki (Ethical Principles for Medical Research Involving Human Subjects). Furthermore, we followed the Spanish Personal Data Protection Act and the Biomedical Research Act [32]. All participants provided written informed consent before they participated in the study.

3. Results

Twenty-five participants were included in the study with a mean age of 43.4 ± 8.7 years. See Table 1 for the sociodemographic profile of the participants. The teachers and the principal had 16.6 ± 8.4 years of teaching experience. The country of birth of the respective parents was Peru (4), Colombia (2), Ethiopia (1), Venezuela (1), Guatemala (2), and Senegal (2). The themes representing the participants' experiences were extracted from the unstructured interviews, FGs, and semi-structured interviews. Nine themes emerged from the material analyzed: (a) the meaning of physical activity, (b) gender inequalities, (c) academic burden, (d) lack of social contact, (e) expenses and family economy, (f) lack of infrastructure and natural surroundings, (g) time constraints, (h) fear and insecurity, and (i) the reason for immigrating. We included the narratives taken directly from the data collection regarding the themes identified in this study.

Within the findings, the multilevel ecological model by Sallis et al. was used [18] to identify the most relevant levels of the model within the themes that were obtained. A summary of the levels of the ecological model is featured in Tables 6–14.

3.1. The Meaning of Physical Activity

One of the barriers found was related to the different perspectives concerning physical activity. For teachers, physical activity was considered part of a child's education and linked to their relationship with their body, highlighting the need for children to acquire healthy habits through learning: "It is impossible to understand the education of these recently arrived children by separating the mental aspects from the physical ones. The body and the child's relationship with their body should be a priority for providing healthy habits." (teacher, focus group). Additionally, for parents, physical activity included movement, agility, physical space, the natural environment, and playing. Physical inactivity was associated with keeping the children locked up indoors: "The children live in cages, they are locked up, it is necessary to get them out of there" (mother, interview). Finally, the priests

described how the children must perform activities together with the family, promoting family union as a key pillar of the community.

The participants perceived a decrease of physical activity in terms of sports and/or games. The absence of games and/or informal extracurricular activities was identified as a barrier for physical activity. The parents described the importance of games that children perform outdoors (i.e., in the street, as being an informal way to perform physical activity). They compared this with their countries of origin, and described how, in Spain, children spend more time at home: “Here, it seems like they aren’t children. They are in their home, playing with the computer, the mobile phones, they are disconnected from playing, from activity, from movement, from their childhood” (father, interview). Many times, parents and teachers concurred that movement via playing should be assigned more importance than intellectual educational pursuits: “They need to peel away from the chair and not only work with their brain, although this is also important” (teacher, interview). The levels of the ecological model identified are described in Table 6.

Table 6. Levels of the ecological model identified in: The meaning of physical activity.

Meaning Units of Theme	Ecological Model Level
Educational policies orientated towards academic contents compared to physical education.	Policy environment
Insufficient programmed and planned activities available for the promotion of physical activity.	
Participation in community events via physical activity.	Social cultural environment
Physical activity in the natural environment (park, forest, countryside) is an essential aspect for children.	Natural environment
Household: children tend to spend their time mostly in the home. Even when at home, they do not perform physical activity. Much time is spent watching the television and playing video games.	Behavior active living domains (household, active recreation, active transport, occupational activities)
Active recreation: physical activity is part of the games children play. Playing and physical activity are linked together.	
Occupational activities: within their own activities, the family can try and perform physical activities together.	

3.2. Gender Inequalities

Gender differences can represent a barrier to the performance of physical activity. Most participants narrated that no difference should exist between boys and girls and that all children should be free to select and practice their preferred activity. However, according to many parents, in real life, there was a difference. These differences existed in their countries of origin and were maintained in Spain: “Soccer is practiced by boys. There are more and more girls, but it is a boy thing. Over there, girls practice volleyball and rhythmic gymnastics. It is very rare for girls to practice it” (father, interview). The levels of the ecological model identified are described in Table 7.

Table 7. Levels of the ecological model identified in: Gender inequalities.

Meaning Units of Theme	Ecological Model Level
The society identifies certain sports with a specific gender. Active recreation: certain physical activities may be limited by gender.	Social cultural environment Behavior active living domains (household, active recreation, active transport, occupational activities)
The environment presents difficulty for girls to access the same.	Perceived environment
The parents would like no gender barriers to exist; however, they still perceive these. Parents perceive gender barriers between boys and girls when performing physical activity in the schools of their countries of origin and this is maintained in Spain.	Intrapersonal

3.3. Academic Burden

The extensive activities children perform at school in addition to homework were perceived as a barrier by parents and teachers. The school day, together with homework to be done after classes, was perceived to lead to children who were continuously tired, stressed, and who lacked time for other activities. All the parents described how the school gave more importance to time dedicated to the educational content than time dedicated to leisure. Because of this, the time dedicated to homework was a hindrance for the practice of physical activity during after-school hours: “They have a large theoretical burden, they must study and they don’t want to do anything else. The excessive amount of homework prevents them from playing and doing sports and having fun” (father, focus group). “The educational system doesn’t let the child be a child. If the school timetables were better organized, then they could have more time to play” (mother, interview).

This point of view was shared by the teachers, who acknowledged that the homework burden should be decreased after school, and that the practice of other activities that allow children to “move” and “wake up their body” should be facilitated: “All day long they are confined to the classroom, and when they go home, they have to do their homework. When are they really children? When do they have time to jump, run, play among themselves, compete, or train any kind of sport? We are focusing on their brain and we forget that they are in a physical body which, if we do not teach them to care for it, when they become adults, they will have problems.” (teacher, interview).

This contrasted with the point of view of the director, who felt that children must face a social and educational environment, which demands them to acquire knowledge and performance, and the school is responsible for preparing them for this: “I understand that children should play more, but, the truth is that in a few years they have to face tests and social demands. It is also our role as educators to prepare them as best as possible” (principal, interview). The levels of the ecological model identified are described in Table 8.

Table 8. Levels of the ecological model identified in: Academic burden.

Meaning Units of Theme	Ecological Model Level
Educational policies and excessive school activities. Socially, the need for large amounts of homework is accepted, as it is considered to be beneficial for the child (being better prepared).	Policy environment Social cultural environment
Household: excessive homework, which limits other activities. Active recreation: this is affected by not having time for other activities.	Behavior active living domains (household, active recreation, active transport, occupational activities)
Inappropriate organization of school work.	Intrapersonal

3.4. Lack of Social Contact

Participants described how contact with other native children facilitates their ability to relate with others via play and physical activity: “It is very important that they practice physical activity, to relate with others (. . .) they share things with school friends and they teach new things to their adopted country” (mother, interview). The teachers described how immigrant children have more difficulty interacting with native children (because they do not know the language, because of rejection, or not understanding the instructions, etc.), and participating in physical activity, therefore choosing more sedentary activities: “The less contact they have with other children, the more closed they become and they participate less in other activities and games. It’s a vicious circle.” (teacher, focus group). On the other hand, most participants agreed that physical activity in a group can help children establish a better connection with the class, with the school and the new country: “I would take away many of the classes and reinforce physical activity for newly arrived immigrant children. Movement is a way for them to communicate among themselves, it’s innate, it’s natural.” (teacher, interview).

In the construction of relationships, relatives who are believers go to church, where they share experiences, and where immigrant children have contact with other children and with Spanish families. Church worship is an opportunity to establish contact and acquire local customs: “Our role is to try and make them feel like they have a place in our family [the church]. Besides, we help them to understand our customs, we organize activities so that they begin to meet new families, so that they can integrate faster.” (priest, interview). “When we got to Spain we were disoriented, the language was the same, but we did not understand many things, here [in Spain], people behave differently, there are other ways of doing things. The church helped us to feel that we belonged somewhere. For my children, it helped them a lot because the first thing they remember is going to the camp that the church organized. They are still friends with the children they met there.” (father, interview).

The levels of the ecological model identified are described in Table 9.

Table 9. Levels of the ecological model identified in: Lack of social contact.

Meaning Units of Theme	Ecological Model Level
The application of physical activity programs and events may help the integration of immigrant children in the new country.	Policy environment
Access to support groups and cultural and social groups facilitates the integration of immigrant children.	Setting: access and characteristics
For Catholic immigrants, the church facilitates the ability to integrate into the community.	
Acquiring information via other institutions, such as the church.	Information environment
Children must relate with other children in the community.	Social cultural environment
Physical activity could be a good means to do so.	
Active recreation: sharing games and sports among children.	Behavior active living domains (household, active recreation, active transport, occupational activities)
The teachers perceive an adverse environment for immigrant children due to language difficulties.	Perceived environment
The teachers perceive that immigrant children present greater difficulty relating with other and sharing games and physical activity with other children.	Intrapersonal

3.5. Expenses and Family Economy

One of the barriers is the economic costs families face when their children practice some kind of organized physical activity. The parents described how this is an expense that they cannot afford: “If you want [your child to practice sports] you have to pay and that is an expense that I cannot afford.” (father, interview). The parents described how, in their countries, there are many social subsidies for playing sports and performing physical activity: “There are associations that give you free sports

training. On behalf of the town hall there are also sports centers, and everything is free” (mother, interview). The parents and teachers described the economic sacrifice the family must make in order for them to practice an activity in Spain: “I know many friends who must go to great efforts so that their sons practice soccer.” (mother, interview). This sacrifice takes many forms, such as investing considerable time, facing economic expenses to cover trips, sports equipment, and enrollment fees in the sports center. The levels of the ecological model identified are described in Table 10.

Table 10. Levels of the ecological model identified in: Expenses and family economy.

Meaning Units of Theme	Ecological Model Level
The creation of support programs for children, in families with limited resources in order to practice sports and/or activities.	Policy environment
The costs of some sports centers limit the access to the performance of physical activity.	Setting: access and characteristics
Ease of access due to a reduction of activity registration costs or free access.	
Active transport: the families help by taking their child to the physical activity; however, this entails an effort to cover the cost of the trips.	Behavior active living domains (household, active recreation, active transport, occupational activities)
The environment is perceived as a barrier for the difficulty for children to access the space.	Perceived environment
To enable the children to perform physical activity, “sacrifices” are made (money, time, transport) on behalf of the family.	Intrapersonal

3.6. Lack of Infrastructure and Natural Surroundings

The teachers and parents related that the absence of sports and leisure infrastructure influences the practice of physical activity: “Our city seems like an abandoned town. There is no place to do sports. There’s not even a sports field, or a sports center to take them to.” (mother, focus group). Also, the parents associated the lack of physical activity with the excessive distance and/or poor accessibility of the space. Many of the parents lacked their own vehicle, having to use public transport as an alternative, or they lacked resources to reach the sports centers: “I would like to take my son to training every day, but we don’t have a car. And to think of using public transport, with the amount of buses that I would have to take to get there, makes it unfeasible. It’s better if he stays at home and studies other subjects.” (mother, focus group).

Many parents described that to share physical activity and games in nature with their children, they must cover long distances. Access to nature is also difficult, whereas in their countries it was part of their daily life: “In my country there were no parks, we had no need, nature was all around the house. Children were playing in the trees all day long. Getting to know ‘nature’ was not an extra activity necessary for their education. They lived with it.” (father, focus group). The levels of the ecological model identified are described in Table 11.

Table 11. Levels of the ecological model identified in: Lack of infrastructure and natural surroundings

Meaning Units of Theme	Ecological Model Level
Absence of infrastructures for the practice of physical activity and sports.	Setting: access and characteristics
Sports centers or open spaces in nature that are poorly accessible because of the distance from the home.	
There is a lack of good transport connections to reach the sports centers or the natural or open space. Either a car is needed, or several public transport connections are needed.	
The natural environment and open spaces to perform physical activity are very far from the home.	Natural environment
Active transport: sports centers that are very far mean that a private vehicle is needed to reach these spaces, or several public transport vehicles.	Behavior active living domains (household, active recreation, active transport, occupational activities)

3.7. Time Constraints

Parents lacked enough time to share activities with their children because of a work timetable that was incompatible with the children's leisure time. The workdays were long and prevented them from playing with their children outside of the home (park) or taking them to sports practices: "Work influences a lot, you aren't with them enough [the children]." (mother, interview). "First things first, and that means working to be able to give my children an opportunity to continue forward in a new country. Games and sports, although it pains me to say it, will have to wait." (father, focus group). From the point of view of the teachers, the organization of the child's day hampered the practice of physical activity, as it coincided with the parents' workday: "The extracurricular activities have timetables that are not compatible with the timetables of their parents, which are workdays of 10–14 hours each day (teacher, interview). My son had a scholarship for having come first in a sports meet at the town hall, but the timetable was from 18:30 to 19:30, and at that time I am still working." (father, interview).

The levels of the ecological model identified are described in Table 12.

Table 12. Ecological model levels identified in: Time constraints.

Meaning Units of Theme	Ecological Model Level
The programming of extracurricular activities does not adapt to the family's work constraints.	Policy environment
Access to sports centers or games is difficult because of the work timetable.	Setting: access and characteristics
Parents with a work timetable that is incompatible with playing or performing physical activity with the children in the community or sharing social and cultural events of the community	Social cultural environment
Active recreation: parents with great difficulty sharing recreational activities with their children, due to work timetables.	Behavior active living domains (household, active recreation, active transport, occupational activities)
Occupational activities: jobs with very long timetables.	
The parents wish they could share more time with their children and perform more activities.	Intrapersonal

3.8. Fear and Insecurity.

Perceived fear and insecurity were other hindrances for practicing physical activity. Some parents even used the term "terror" to describe their feeling of insecurity when taking their children to perform physical activity or play outdoors. They felt that it was unsafe to leave children alone playing on the street: "I am terrified about taking them to the park to play basketball. There is a big park, but it

has a bit of everything and you see people who are so strange, it's scary. And in the street the same thing happens, I don't let them go out on their own." (mother, interview). Some parents demanded the need for open spaces, such as parks; however, over time, many acknowledged that they stopped going to these places with their children due to feelings of insecurity: "I know that my children need to run, jump, play, practice sports and leave the home . . . but if the alternative is playing soccer in a neighborhood that I don't know, or in the park with no control, I prefer that they stay at home." (father, focus group).

In contrast, there were participants who felt that risks always exist, and therefore this must not condition children to limit their opportunities of doing sports, playing or interacting with other children and in other environments. They compared how, in their countries of origin, this risk was much more palpable, and that in Spain, children must not stop practicing sports because the risk is very different: "In my country [Columbia], there is a lot of crime. You can't do anything in the open air. You know, kidnappings, armed assault and those kinds of things. In Spain, you go out running and you aren't fearful of people robbing you, here you do not perceive any insecurity." (mother, interview). The levels of the ecological model identified are described in Table 13.

Table 13. Ecological model levels identified in: Fear and insecurity.

Meaning Units of Theme	Ecological Model Level
The development of policies for the control of public spaces is necessary, for games, sports, and other community activities.	Policy environment
Insecurity, risk of danger, and uncontrolled environments hamper the practice of physical activity on behalf of children.	Setting: access and characteristics
These spaces are avoided by the parents, who limit activity in children.	
There is parental control regarding the performance of physical activity, games and sports according to the perceived risk or insecurity for their children within a community.	Social cultural environment
Participation in activities in open spaces, such as parks, is avoided because of insecurity.	Natural environment
Household activity: avoiding the performance of outdoor activities is compensated with activities in the home.	Behavior active living domains (household, active recreation, active transport, occupational activities)
Active recreation: this is affected due to the limitation of activities outside the home.	
Parents display fear and insecurity when leaving their children alone playing in the street or alone in open spaces.	Intrapersonal
The perception of risk or insecurity in Spain is lower compared to their country of origin.	

3.9. The Reason for Immigrating.

The reasons that lead the families to immigrate can also be a hindrance for children to practice physical activity. For many parents, economic reasons were behind their choice to immigrate. Therefore, practicing physical activity was not seen as a priority: "What did we come here for (the immigrants): to work and make money, and we don't have time to do anything more, the rest is secondary, my children understand." (father, interview). On the other hand, when residence was more permanent (refugees, political asylum), the children's education, with all its intellectual and physical dimensions, acquired greater importance. Children were prioritized and therefore required parents' time: "When you realize that Spain is going to be your new home, everything changes. You try to give your children the same opportunities as any other child, for him to do what other children here [in Spain] do, to become one of them. His education is the most important thing." (mother, focus group). The levels of the ecological model identified are described in Table 14.

Table 14. Ecological model levels identified in: The reason for immigrating.

Meaning Units of Theme	Ecological Model Level
Work and making money is the family priority, limiting the access of children to sports activities and spaces.	Setting: access and characteristics
The choice to immigrate is determined by economic motives which are the family priority. In the case of temporary immigrants, physical activity is not a priority. However, for families that settle in Spain, physical activity is a necessary factor which their children must develop, like Spanish children.	
Occupational activities: the priority is the economy and making money.	Behavior active living domains (household, active recreation, active transport, occupational activities)
Parents who settle in Spain perceive that practicing physical activity is just another element within their education.	Intrapersonal

Finally, Table 15 displays the levels of the ecological model identified in each of the themes.

Table 15. Relationships among identified themes according to each level of the ecological model.

Ecological Model Level	The Meaning of Physical Activity	Gender Inequalities	Academic Burden	Lack of Social Contact	Expenses and Family Economy	Lack of Infrastructure and Natural Surroundings	Time Constraints	Fear and Insecurity	The Reason for Immigrating
Policy environment	X		X	X	X		X	X	
Social cultural environment	X	X	X	X			X	X	
Natural environment	X					X		X	
Information environment				X					
Setting: access and characteristics				X	X	X	X	X	X
Behavior active living domains ¹	Hh, Ar, Oa	Ar	Hh, Ar	Ar	At	At	Ar, Oa	Hh, Ar	Oa
Perceived environment		X		X	X				
Intrapersonal		X	X	X	X		X		X

¹ Relationship identified between theme and ecological model level (X); Household (Hh); Active recreation (Ar); Active transport (At); Occupational activities (Oa).

4. Discussion

Our results revealed a number of barriers for physical activity promotion in immigrant children from the perspective of parents, teachers, a principal, and community leaders. Our study continues a line of research on the factors that impact upon and influence the practice of physical activity and the implementation of a healthy lifestyle in immigrant children [10,17,22].

Previous studies regarding physical activity in children and teenagers [33,34] show how children and teenagers whose parents were immigrants practiced less physical activity compared to native children and teenagers. In the USA, Brewer et al [33] reported that this disparity is not attenuated by a child's socioeconomic, family, or neighborhood characteristics. Also, patterns of physical activity have been found to vary according to the immigrant generation status (being born in a new country vs. being born in the country of origin), and the process of acculturation [33,34].

Our participants did not agree with the existence of gender inequality in the practice of physical activity; however, many parents acknowledged that this type of bias exists in their country of origin. The existence of inequality in the practice of physical activity among men and women can be considered a global phenomenon [35]. In Spain, the 2016 survey on sports habits by the Ministry of Education and Culture [36] shows that boys mostly practice sports such as soccer, cycling, and swimming, and that girls mainly practice gymnastics, hiking, and swimming. Previous studies [10,37] show that this gender difference exists even in recess hours during school, where the amount of physical activity performed varies (greater in boys) as well as the type of activities performed ("boys games" versus "girls games"). Culture, ethnicity, and religion may, in part, explain this gender difference in immigrant children [10,37].

Our participants perceived a significant academic burden regarding academically-oriented school activities compared to activities promoting physical skills. This is in line with Trigwell et al. [10], who reported that ethnic groups from different cultures (Asian Bangladeshi, Chinese, Yemeni) prioritized educational attainment over physical activity. In contrast, many studies [14,38] agree with the need to increase physical activity in school curricula [38] and incorporating break periods between lessons [14]. Public health recommendations highlight the pivotal role that schools and teachers play in providing equitable opportunities for physical activity for all children. Also, opportunities to increase physical activity throughout the school day should span, not only in-school time (e.g., quality recess and physical education, classroom activity breaks), but also time before school (e.g., active commuting initiatives) and after school (e.g., intramural and interscholastic sports programs) [11,38].

Our results highlight how the neighborhoods where our participants lived do not present the necessary conditions, nor do they have sufficient infrastructure, for the practice of physical activity. Previous studies [17,39] show how the neighborhood, the area of the city where they are located, the presence of parks, accessible urban transport, and comprehensive urban planning to support physical activity (walkability) all influence the performance of physical activity. More specifically, in the case of children and youth, previous studies [17,40] have shown an association between neighborhood-built environments and an increased level of physical activity (and, consequently, a decrease in sedentary time). This also applies to young immigrant children/youth of other cultures or ethnicities in Western countries [17].

Nevertheless, fear and insecurity are also major barriers for the practice of physical activity. Previous studies show how crime, insecurity, the perceived presence of "dangerous" people, and the lack of safe spaces influence the possibility of taking children to leisure activities in safe spaces (with or without physical activity) [10,13,16,17].

Previous studies [12,41] have examined the influence of parents on children's physical activity, and the evidence for the context-specific influence of parental modelling on physical activity in childhood remains inconclusive. Along these lines, the SOPHYA Study Group [41] reported that parental modelling (physical activity practice) seems relevant for children's physical activity ($p < 0.001$), and were stronger for children aged 10–12 years, although not to the same extent in all children. This conflicts with previous studies [12] which have shown that parental modeling was not associated

with physical activity in children. We believe that an important barrier in the practice of physical activity in immigrant children is the socioeconomic-work situation of the parents, narrated in the themes “costs and economy,” “lack of time,” and the “motive for immigrating.” Parents choose to immigrate in order to earn a living and improve the family’s quality of life (via precarious employment or low-skilled employment with long working days), which is associated with insufficient economic resources and a lack of time for parents to invest in their children practicing physical activity, playing, and spending time together. Thus, a vicious circle is created, which can perpetuate certain activity routines in children in favor of sedentarism. In Spain, the National Immigrant Survey [42] describes how Latin American immigrants are labeled as economic immigrants (seeking economic improvements) who perform poorly qualified labor, and are mainly located in the lower levels of the socio-economic scale. Two out of every five immigrants are employed in manual labor and are poorly qualified (40%) and one in four (22%) performs manual labor for which a certain level of preparation is required. This means that low-skilled jobs with low salaries are perpetuated with long work days. Previous studies [22,40] show how parents’ lack of time, long work days, family burden, low salaries, and not having enough money to cover expenses (buying sports equipment, enrolling in sports activities) negatively impacts children’s physical activity. According to former studies conducted in Spain [40,43], children and adolescents who live in neighborhoods with a lower socio-economic status are less physically active.

In Spain, previous studies [44,45] that took place in the cities of Granada and Cuenca described how the volume of traffic, the poorly signposted intersections and pedestrian crossings en route to the school, and the insecurity were perceived as barriers for the performance of physical activity in children. Additionally, the organization of space, time, and physical activity performed in recess time at school was highlighted [44]. The lack of programming any physical activity during recess time led to situations where only certain physical activities were performed, monopolizing time and space, meaning that, at times, children did not participate in any physical activity and that gender differences between boys and girls was perpetuated. An example of this is soccer playing. Gutiérrez-Zornoza et al. [45] described the influence of the environment on the physical activity habits of school children. These authors reported that children perceived that residing in gated communities or in rural areas facilitated physical activity, as opposed to residing in neighborhoods and cities. They reported that their children’s feelings of insecurity regarding road traffic, car journeys, and an overall sense of not belonging or being accepted in the neighborhood were perceived as barriers to being active. Therefore, in Spain, the following barriers are highlighted: environmental barriers (accessing the schools and safe traffic), organizational barriers in the selection of physical activities within and outside the school, and social barriers (belonging to certain neighborhoods or areas). In previous Spanish studies [44,45], no distinction was made between immigrant and native children. On the other hand, within the context of Hispanic culture, in the USA, Ross and Francis [46] described physical activity perceptions, context, facilitators, and barriers from the perspective of Hispanic immigrant-origin children. These authors reported how Latino children had negative attitudes toward physical activity that were related to physical discomfort, low athletic competence, and safety concerns. Also, children had difficulties differentiating physical activity and play, and “fun” was identified as a primary driver of physical activity preferences. Also, Turner et al. [47] researched family lifestyle behaviors of Mexican-American and Mexican immigrant fathers and mothers and their repercussion on the performance of physical activities in children. This previous study found that parents were permissive regarding their child’s sedentary habits (which involved playing video games and watching television for lengthy periods), rather than actively encouraging them to be more physically active.

In our study, one might expect that immigrants who have a common language, and a common Hispanic culture (nine parents), would not encounter difficulties for promoting physical activity in their children. However, we have found similar difficulties in previous studies [10,16,17,22] that studied physical activity in children of different ethnicities, cultures, religions, and languages. This could be explained by the fact that the socioeconomic conditions for the immigrant parents of our study

are perceived as a determinant for their children regarding performing physical activity, despite not having linguistic barriers. Additionally, during the process of integration, non-native children may acquire habits and customs of the new country that could influence their health, including the adoption of sedentary habits [48].

It is worth noting that ecological model proposed by Sallis [18] was a secondary analysis applied just to contextualize the results by classifying them. However, this ecological model was not the aim of this study despite being used with an exploratory purpose. On the other hand, this ecological model could be useful as a theoretical model to guide data collection and as a primary analysis of future qualitative studies in the field of physical activity.

The implications of this study are based on the development of specific policies, programs, and actions for fostering and promoting physical activity, as well as eliminating the associated barriers and difficulties present in the community, the school, and the homes of immigrant children and their families. These interventions must be open and acting simultaneously upon different levels. Thus, for example, the development of security policies and crime control in the physical environment (i.e., parks) of a community acts upon the levels of the policy environment, setting: access and characteristics, and perceived environment. More concretely, educational policies should be included, oriented towards improving physical education in schools, policies promoting physical activity in the community, and the use of public spaces with the development of programs oriented toward the integration of immigrant children via physical activity, policies that help immigrant families with limited resources to access infrastructures and sports resources, and finally, work policies that facilitate work timetables compatible with the leisure time of both the child and the family (policy environment level, social cultural environment level, setting: access and characteristics level, perceived environment level, and intrapersonal level). Besides, there is a need to develop programs in schools to promote equality among sexes for participation in physical activities and sports while supporting physical activity in the natural environment and open spaces (i.e., parks and forest). Likewise, it is necessary to include community initiatives that facilitate the use of leisure time outside the home for performing physical activity with other children and/or with the family. Lastly, detailed information should be provided concerning physical activity proposals by integrating public and private initiatives within the community (social cultural environment level, natural environment, information environment level, setting: access and characteristics level, behavior active living domains level, perceived environment level, and intrapersonal level). Besides, it is also important to encourage urban design policies that facilitate access to open spaces within and/or close to the communities, and the development of sports resources with accessible timetables that are compatible with the workload of parents. Also, a network of appropriate means of transport should be created to ensure access to sports centers (setting: access and characteristics level, social cultural environment level, behavior active living domains level, and intrapersonal level).

Future lines of research should study the existence of barriers for the practice of physical activity in immigrant children of different nationalities, focusing also on different sports and including girls from different cultures and ethnicities. Additionally, further research should aim to develop public policies to promote physical activity in immigrant children in urban settings.

Limitations

This study has several limitations. First, a small number of participants was included. The qualitative nature of this study meant that the aim was to describe the experiences of the participants and, therefore, these findings cannot be generalized. We also only included participants from a single religious context (i.e., Catholicism). It would be necessary to develop future studies with immigrants from other religions.

5. Conclusions

Our findings help further our understanding of the factors related with physical activity in immigrant children living in Spain. One of the strengths of this study is that this is the first study to describe the barriers for performing physical activity in immigrant children from the parents' perspective and that of other participants living in their community and social environment.

Despite the fact that most parents in our study came from countries with cultural and linguistic ties with Spain, they perceived barriers for the performance of physical activity that were similar to the barriers identified in immigrants without cultural or linguistic ties to other European countries.

These results may be used for the development of physical activity programs in specific social contexts. These programs should: (a) reorganize the school study plans (decreasing the educational burden and the amount of homework given to children to increase the time dedicated to physical activity), (b) promote the participation of the whole family in children's physical activity, (c) provide economic support for families with fewer resources in order to cover enrollment costs and expenses related to children's sports practice, (d) improve the organization of sports activities and multicultural games in the community on behalf of the town halls and public institutions, and (e) encourage the development of safe natural public spaces within cities.

Future studies should incorporate the perspective of Spanish children and adolescents of immigrant origin to provide a greater depth to the development of physical activity programs and to further understand detected barriers and facilitators for the performance of physical activity.

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3.2. ESTUDIO 2: The Meaning of Physical Activity: A Qualitative Study on the Perspective of South American Immigrant Parents



Article

The Meaning of Physical Activity: A Qualitative Study on the Perspective of South American Immigrant Parents

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Abstract: Physical activity facilitates the acquisition of healthy habits from childhood to adulthood. There are differences in the practice of physical activity between immigrant children and native Spanish children. The aim was to describe physical activity in children, from the perspective of South American immigrant parents. A qualitative case study was conducted. Parents were recruited using purposeful sampling. Data were collected from 12 participants by means of unstructured interviews together with researcher notes. A thematic analysis was applied. The following topics were identified: (a) physical activity and health, (b) socialization, (c) the need for movement, (d) gender, (e) barriers, (f) educational burden, (g) community living, and (h) reason for immigrating. Parents described how physical activity is fundamental and has benefits for health, and for the relationship between children. They perceived that physical activity should not be limited by gender. The time dedicated to other school activities, the norms related to community living, and financial limitations were especially relevant as barriers for the performance of physical activity. These results can be used to revise the curriculum in schools, promote equal opportunities for physical activity and support family participation.

Keywords: immigrants; physical education and training; exercise; youth; parents; qualitative research

1. Introduction

The World Health Organization (WHO) [1] states that physical inactivity is the fourth leading risk factor for mortality worldwide (6% of deaths) after hypertension (13%), tobacco use (9%), excess glucose (6%), ahead of obesity (5%). The WHO [1] recommends 150 min per week of moderate aerobic physical activity or 75 min per week of vigorous aerobic physical activity or a combination of both. In Spain, the National Health Survey in Spain in 2017 [2] describes how 36.04% of the interviewees perceive themselves to be sedentary in their free time. This figure varies according to nationality, with 35.02% of individuals born in Spain admitting to being sedentary compared to 43.18% of individuals whose country of origin was not Spanish (immigrants). This difference increased in individuals aged between 15 and 24 years old by more than 10 points, and by 12 points in individuals

aged between 25 and 64 years old. Immigrant men and women are more sedentary compared to Spanish men and women in the same age groups. However, minors of foreign nationality are more active in their free time than natives (up to six points difference among sexes).

Previous studies [3–7] conducted in the USA and European countries show that children with foreign parents were less physically active than children with native parents. Griffiths et al. [6] described how, in children over the age of seven with immigrant parents, 40% had a level of physical activity considered “adequate” compared to 50% of children with native British parents. Recent European studies show that young immigrants have more difficulty accessing sports clubs and are less physically active than natives [8–10]. However, the study by Reimers et al. shows that foreigners participate much more in the extracurricular activities offered at educational centers [8]. The difference in the manner in which native people and foreigners practice physical activity can change when immigrants have been in the country longer or if they are second-generation immigrants [11,12]. This difference decreases if the children are second-generation immigrants [4].

Physical activity in children and adolescents becomes important in relation to obesity. Obesity is a non-transmittable disease considered by the WHO as the fifth mortality factor in the world [1]. Obesity in children and adolescents is a very important factor in early metabolic syndrome and the development of cardiorespiratory diseases [13]. It is a major health risk, although it can be overcome through physical activity [14]. In Spain, according to the National Health Survey [2], Spaniards show a higher percentage of overweight and/or obesity than the immigrant population. However, between 18 and 24 years of age, the immigrant population is more overweight and/or obese than the native population (32.95% versus 24.09% respectively). Foreign women, present greater overweight and obesity between 18 and 64 years of age, compared with Spanish women. In the case of children, there are higher rates of obesity among Spanish children than in immigrant children, in both sexes. These findings are in contrast with a report by Marín-Guerrero et al. [15] in the Community of Madrid who reported a high prevalence of obesity among the foreign population. A review published in 2014 [16] also demonstrated this prevalence of obesity among the immigrant population.

Other factors, such as environmental and/or socio-ecological factors influence the practice of physical activity or the prevalence of obesity [17–20]. Previous qualitative studies [7,11,21] reported that the factors that limit the practice of physical activity among immigrant children are both environmental barriers (insecurity, lack of sports or leisure resources, and lack of transportation), and socioeconomic barriers (lack of time or income), as well as cultural barriers (religion/beliefs, educational level, language, or gender inequality), which may prevent or limit the practice of physical activity among immigrant children, compared to native children. In addition, the parents’ sporting and eating behavior are also relevant factors in children’s behavior [14,22,23], as they act as role models. Martínez-Andrés et al. [24] describe how parents organize family life according to their own perspectives and priorities, putting educational activities first and leaving physical leisure activities for later.

In Spain, the immigrant population represents 10% of the total population in 2019 [25], and it is predicted that the immigrant population will represent up to 20% of the total population of Spain in 2033 [26]. This increase in population means that new families will be incorporated, with habits and customs, which could be subject to risk and/or protective factors such as physical activity or sedentary behavior. At this point, the authors believe that the parents’ perspective is fundamental in order to establish adherence to healthy habits such as physical activity.

The questions guiding this study are: How do immigrant parents perceive physical activity? What does it mean to them? Do they consider that exercise to be an educational asset or a healthy lifestyle habit that is passed on to their children? Answering these questions may help to understand the role of parents in the practice of physical activity among immigrant children and adolescents and in relation to the acquisition of healthy habits. The aim of this study was to describe the perspectives of immigrant parents on physical activity and how this applies to their children.

2. Materials and Methods

2.1. Design

A qualitative exploratory case study, using an interpretivist paradigm [27]. A case study is a research design that involves an examination of a contemporary phenomenon in a real-life setting [28]. It is used to explore and describe a single case bounded in time and place (i.e., the parents' perspective regarding their children's physical activity). Moreover, a qualitative case study can be used to describe participants' experiences regarding care, policy change, and understand why behaviors and complex interventions succeed or fail [28]. This research followed the international recommendations for conducting qualitative studies established by the Consolidated Criteria for Reporting Qualitative Research (COREQ) [29] and the Standards for Reporting Qualitative Research (SRQR) [30] (<http://www.equator-network.org/>).

2.2. Study Context

Alcorcón is a municipality of 33.73 km², located 13 km southwest from Madrid, in the Metropolitan Area of Madrid, within the province of Madrid (Community of Madrid, Spain). The greatest population growth took place in the 1970s, mainly due to the settlement of immigrants from other regions of Spain [31]. Currently, in the Community of Madrid, where the municipality of Alcorcón is located, the percentage of physical inactivity among adolescents is 30%. In relation to the situation of the immigrant population in terms of physical activity, the Community of Madrid reports a percentage of inactivity of approximately 39% among immigrant adolescents [2]. Alcorcón is one of the municipalities with the largest foreign population in the community of Madrid, and therefore there is a need for studies to deepen our knowledge of the physical activity dynamics among this group.

For this reason, the authors decided to visit institutions or centers where the population of South American immigrants gather for worship, or for cultural and civic activities, and where there were greater possibilities of recruiting participants for the study. The Caritas organization of the Parish Inmaculada Concepción de Nuestra Señora and the Parish Nuestra Señora de la Saleta, where large groups of South American immigrants met every Sunday and holiday, were particularly relevant.

The participants attended the Parish Inmaculada Concepción de Nuestra Señora (Alcorcón, Madrid) and the Parish Nuestra Señora de la Saleta (Alcorcón, Madrid). Both these parishes had programs for assisting and supporting the integration of immigrant families. These programs included the implementation of healthy habits in children and adolescents through physical activity.

2.3. Participants

The inclusion criteria were; (a) parents living in the Community of Madrid, (b) born in countries outside Spain and the European Union, (c) who at the time of the study had children over three years old in the Spanish education system, (d) who belonged to the Caritas organization of the Parish Inmaculada Concepción de Nuestra Señora or the Parish Nuestra Señora de la Saleta, and (e) who signed the informed consent. The exclusion criteria were: (a) parents under 18 years of age, (b) refusal to participate in the study, (c) native parents (born in Spain) and (d) not signing the informed consent.

2.4. Sampling Strategy

In qualitative research, sampling is the process of selecting or searching for situations, contexts and/or participants that provide rich data of the phenomenon of interest [32]. Non-probabilistic purposive sampling was performed [33], in which participants were selected based on their ability to provide relevant information to answer the study question. Sampling continued until the ongoing analysis revealed data redundancy [32]. Finally, 12 participants were included in the sample and none withdrew from the study.

2.5. Recruitment

The participants were contacted through the priest and coordinator of the family care program. Potential participants (parents) were then contacted by telephone and informed of the study. After a two-week period, they were contacted once again to confirm their participation.

2.6. Data Collection

Data were collected via unstructured interviews conducted in Spanish [33]. These interviews allow for inquiry and questioning in an open and flexible manner without imposing the researcher's perspective [34]. This enables participants to describe and narrate what is most relevant to them. The interview consisted of several open-ended questions: How is your experience with physical activity? Do you think it is relevant for your children? Based on these questions, the researcher wrote down the words, concepts and expressions that the participants used to cross-examine them. Repeating the cycle over and over again, deepening the participant's experience [33]. Overall, 20 interviews were conducted, and 20 researchers' field notes were collected. Eight participants were interviewed on two separate occasions, as it was necessary to collect more information. The remaining participants received a single interview.

2.7. Data Analysis

A thematic analysis was applied for the description and interpretation of parents' narratives [35]. The analysis was conducted on all interview transcripts [34]. In the coding process, the descriptive components that made up the participants' experience were identified, these descriptive components formed meaning units, which were then grouped into common groups of meaning, to finally identify the themes that described the participants' perspective [35].

2.8. Ethical Considerations

The study was approved by the Ethics and Clinical Research Committee of the Rey Juan Carlos University (code: 3001201702417). In addition, the Data Protection Law (Law 15/1999) was complied with, guaranteeing confidentiality and good practice standards. Participation in the study was voluntary and informed consent was signed prior to conducting the interviews.

2.9. Quality Criteria

In addition to following the COREQ [29] and SRQR [30] recommendations, the Guba and Lincoln criteria were applied to establish credibility, transferability, dependability, and confirmability [36]. The techniques to ensure credibility were; researcher triangulation, triangulation of data collection instruments, and participant validation. For transferability, the research protocol, and the context and participants of the study were described in detail. An external auditor/researcher was used to ensure confidence. This external auditor reviewed the research protocol, focusing on the development of materials and methods. External audits involve having a researcher who is not involved in the research process examine both the process and product of the research study. The purpose is to evaluate the accuracy and evaluate whether or not the findings, interpretations and conclusions are supported by the data. In the present study, four external audit trials were performed, prior to commencing the study (before February 2017), twice during the study (from February 2017 to June 2017; in March and May 2017), and once after completion of the study (after June 2017). Finally, for the purpose of confirmability, the researchers' reflexivity process was applied, holding meetings to establish the research team's prior position on the topic under study [33].

3. Results

The study began in February 2017 and was completed in June 2017. Twelve participants were included (seven women and five men), with a mean age of 41. The participants came from different regions of South America (Argentina, Colombia, Ecuador and Honduras). All were defined as having

a low or low/middle socio-economic level. The demographic characteristics and physical activity habits of participants are shown in Table 1.

Table 1. Sociodemographic characteristics and participant data.

Characteristics	Participants
Age (y)	
Mean $\pm$ SD ¹	41 $\pm$ 3.97
Range	36–46
Country of birth (n)	
Argentina	4
Colombia	4
Ecuador	2
Honduras	2
Years of residence in Spain (y)	
Mean $\pm$ SD	3.17 $\pm$ 1.47
Range	1–5
Children residing at home (n)	
Means $\pm$ SD	2.75 $\pm$ 0.97
Range	2–5
Age of Children (y)	
Mean $\pm$ SD	5.85 $\pm$ 2.98
Range	1–12
Net monthly household income levels (n) ²	
$\geq$ 3600 euros (level I)	0
2200 € to 3600 € (level II)	0
1550 € to 2200 € (level III)	2
1050 € to 1550 € (level IV)	4
Less than 1050 € (level V)	6
Leisure time physical activity (n)	
Mother	
Yes	0
No	7
Father	
Yes	4
No	1

¹SD = standard deviation; ² Ministry of Health, Consumer Affairs and Social Welfare. National Health Survey. Spain 2017 (ENSE 2017) [2].

The themes identified were: Physical Activity and Health, Socialization, The Need for Movement, Gender, Barriers, Educational Burden, Community Living and The Reason for Immigrating. The results are presented below with fragments of the participants' original narratives to justify the results obtained [33]. Additionally, Figure 1 shows our findings using a conceptual map [37].

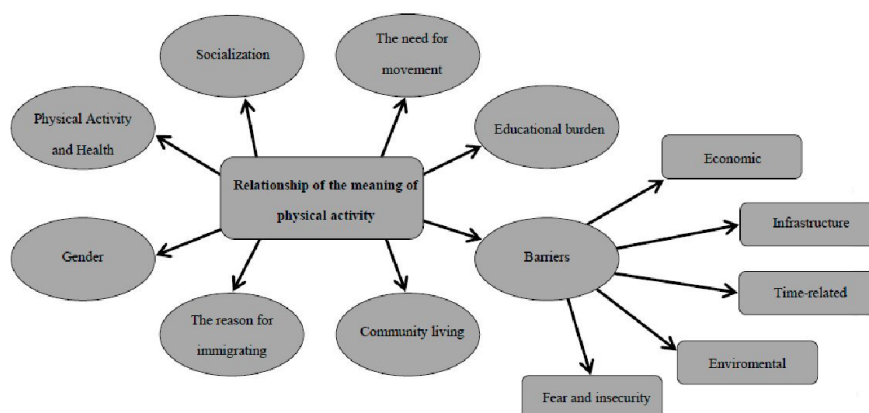


Figure 1. Conceptual map of results.

3.1. Physical Activity and Health

Participants ($n = 9$) described how physical activity leads to better fitness, better health, improved quality of life and physical well-being: “Being more active, more agile, and breathing better, feeling better in general” (P5, female, income level IV).

In addition, they also referred to how physical activity improves mental health: “You have to exercise to be well, to improve your self-esteem, in terms of mental health” (P1, female, income level V); “Changing your routine, obtaining relief, is a way of relieving everyday tension, even, calming the mind” (P4, male, income level IV).

3.2. Socialization

For parents ($n = 8$), physical activity supports socialization and helps instill certain values in their children. The narratives highlight the relevance of this for parents: “It is very important for them to practice physical activity, to socialize and get along in life” (P2, male, income level V); “They share with friends at school and learn to share with people outside school, in the parks” (P4, male, income level IV); “Doing something in a group is important. Belonging to a team is important” (P5, female, income level IV).

The narratives ($n = 5$) highlight the belief that practicing physical activity as a child can help their children be healthier when they reach adulthood: “You will always have better health conditions if you move, than if you are a sedentary person” (P6, male, income level III).

3.3. The Need for Movement

For the interviewees ($n = 5$), movement was a recurrent theme when qualifying and defining physical activity. Physical activity consists of movement, agility, physical space, the natural environment and play. In contrast to being sedentary, or confining a child to the house, which was compared to being cooped up in a cage: “Children live in cages, they are locked up” (P9, female, income level III).

Seven participants also compared the way children play and practice physical activity in Spain in relation to their countries of origin. Thus, in Spain, both children and people, in general, spend more time indoors, and consequently, they are more sedentary. In addition, they voiced their concerns with regard school environments, feeling that movement should be granted equal or greater importance as intellectual activity: “They need to get out of the chair and not just exercise the brain, which is also important” (P12, female, income level V).

3.4. Gender

The narratives also revealed differences in sports practice by gender. All participants unanimously stated that there should not be any difference in physical activity practice between boys and girls. Thus, no activity should be reserved for only one sex. Every child should be free to choose and practice the activities he or she desires: "I don't think that sport has anything to do with sexual personality. As long as they feel good" (P10, male, income level V).

However, all parents' acknowledged differences between boys and girls. Boys play more football and girls play more sports like volleyball or gymnastics: "Football is played by boys. There are more and more girls, but it's a boy thing. In my country, girls practice a lot of volleyball and rhythmic gymnastics. It is very rare for boys to play such sports" (P6, female, income level III).

3.5. Barriers

Barriers encountered by parents when encouraging and/or practicing physical activity with their children include: economic barriers, infrastructure barriers, time-related barriers, environmental barriers, or barriers due to fear and insecurity.

3.5.1. Economic Barriers

Eight participants reported that families must cover significant economic expenses when their children engage in any kind of organized or regulated physical activity: "If you want your child to practice, you have to pay and that seems overwhelming to me" (P1, female, income level V); "If you don't have help, I can't afford it. It's an expense I can't afford." (P2, male, income level V).

A difference was highlighted between the country of origin and Spain. Family benefits are more extensive in Latin American countries, allowing families to participate in physical activities with their children: "There are associations that provide free training. There are also sports centers belonging to the city council, and everything is free" (P8, male, income level V).

The concept of "sacrifice" appeared in the participants' narratives ($n = 5$). Families much make a great sacrifice in order to enable their children to practice some kind of activity: "I know many friends who have to make great efforts to get their children to play soccer, they sacrifice a lot for them" (P6, female, income level III).

Finally, having to register with a club, or a sports school, is considered another barrier for four participants. In addition to having to pay registration fees, specific material equipment is required: "Here you must pay for everything, you have to put them in a defined, organized team. If you don't have the right boots, you can't play" (P11, male, income level IV).

3.5.2. Infrastructure Barriers

Our participants ($n = 7$) reported that the availability of sports and/or leisure infrastructures near the family home, and their distance influences the child's physical activity. The narratives show that the absence of facilities conditions and prevents children's engagement in physical activity: "In the case of Parla, it is an abandoned village. There is no place to do sport. There is neither a field nor a sports center to take them to, there are no sports areas" (P1, female, income level V).

Parents ($n = 5$) reported that the greater the distance from the facilities, the less likely their children are to practice physical or sporting activities. Substantial time is involved in travelling to and from these centers: "There is a lake, it is a very big park, but mothers do not always have the availability to go there every day. It's far away and, without a car, it's impossible" (P9, female, income level III).

3.5.3. Time-Related Barriers

In order for their children to be physically active, parents ($n = 7$) must invest large amounts of their time. However, often, parents ($n = 4$) complained of a lack of time available, either because of an extended working day, and/or because their work hours are incompatible with the child's leisure time. Six parents described that their working hours are intense and this does not allow them to take

their children to organized physical activities or to the park: “Work has a great influence, you cannot spend enough time with them (the children) either. If you don’t have enough time, you can’t do it either” (P10, male, income level V).

This lack of time influences children’s physical activity, as well as having an impact on parents’ practice ($n = 5$). Thus, parents assigned priority to their children’s practice of physical activity and leisure above over their own: “We have a lot of work. And I prefer to spend more time with my children instead of going to do sport” (P4, male, income level IV); “But I can’t do sport with the children anymore. For me it is a big obstacle to do physical activities” (P12, female, income level V).

Other key points raised were: the lack of time, organizing the child’s schedule and the pace of the day. The participants ($n = 3$) described how the proposed timetable for practicing sports activities was unsuitable, both for their children and for the ability to balance work/family life: “The extra-curricular activities that we can take them to, which are often more compatible with my work, are more expensive” (P5, female, income level IV); “My son had a scholarship because he came first at a sports meet at the town hall, but the timetable was from 6.30 p.m. to 7.30 p.m., and I can’t take them at that time. What did I end up doing? We took him out, we couldn’t go” (P8, female, income level V).

3.5.4. Environmental Barrier

The parent’s narratives ($n = 5$) describe how the lack of nature or a natural environment near the homes is a constraint for engaging in physical activity: “In my country, there is more freedom to play sports outdoors than here, the children still go down to the street to play football” (P2, male, income level V); “We are much more limited here by the surrounding environment” (P7, male, income level IV).

3.5.5. Barriers due to Fear and Insecurity

This refers to the insecurity and fear that parents ($n = 7$) feel when they take their children to physical activities in an unsafe environment. Some ($n = 3$) felt “terrified” due to the feelings of insecurity when going to some of the parks. In addition, if there are areas that are not recommended for children because of insecurity, they feel that it is unsafe to leave children alone in the street to play ball: “The courts are full of people who hurt the children, and as a mother I feel afraid to let them go” (P2, male, income level V); “Here you feel terrified of taking them. There’s a big park, but since everyone goes, it scares you. And in the street you can’t leave them alone either” (P11, male, income level IV).

In contrast, participant 3 expressed opposite feelings, in Spain he did not fear taking his children to the park or letting them play in the street, compared to his native country, Colombia: “In Colombia, there is a lot of crime. You can’t do anything outdoors in my country. In Spain, you go for a run and you aren’t afraid of being robbed. In my country, the fear of going out is huge” (P3, female, income level V).

3.6. Educational Burden

It refers to the burden of homework and school-related activities that children must engage in after the school day. Parents ($n = 5$) narrate how their children have to study a lot, both during school hours and during “so-called” leisure time. The complaint shared by all parents is that the educational burden is greater and more important than enjoying leisure time. The time dedicated to homework is a deterrent for the practice of extra-curricular activities: “They have a great deal of theory. They come super tired (from school), they have to study and they don’t want to do anything else” (P11, male, income level IV).

Most of the interviewees ($n = 10$) felt that the school curriculum does not assign enough importance to physical activities, as the theoretical burden is very demanding: “The excess of homework compels them not to do sports or have fun” (P9, female, income level III); “The education

system has bad schedules that do not let the child be a child. If school schedules were better organized, they could have more time to play and be children" (P6, female, income level III).

3.7. Community Living

Sometimes, problems arise in the neighborhood communities, because of community norms that do not allow children to play certain activities in the courtyards. Specifically, it is often forbidden to play ball: "In the communities you can't play, the rules of the communities don't allow them to play ball, they are children, that's what they should do" (P9, female, income level III).

Parents (n = 4) described how in their countries of origin there is more freedom to play or practice physical activity in the street compared to Spain. They report that, regarding the community relations between neighbors, it is accepted that children should play and do physical activity (sport): "In my country, we don't live in buildings, we can all play in the street, people go out and everyone starts to play, they go on their bikes or dance. We don't get angry about these things" (P10, male, income level V).

3.8. The Reason for Immigrating

Most parents (n = 10) acknowledged that their reason for immigrating was financial. They need to earn money to be able to send it back to their native country, or save enough to return to their country in the future. Thus, physical activity is not a priority for them. This influences their children's physical activity and the time they spend with them, since the goal is to work more to earn more: "An immigrant wants to return to his or her country. Earn money and return. We come here to work, to earn money, and we don't have time to be active, sometimes we don't even have time for our own children" (P7, male, income level IV).

4. Discussion

The socio-demographic data shown in Table 1 contextualize the results obtained from the participants' narratives. Accordingly, in order to understand the results, it is necessary to contextualize which participants provided narrations regarding their experience [27,33]. In this study, the participants were mostly middle-aged women, most of whom did not engage in physical activity in their free time and earned less than 1550 to 2200 euros per month.

This paper aimed to describe the meaning of children's physical activity from the perspective of immigrant parents. Previous studies [3–5,11,24] show how young people and children whose parents are immigrants were less physically active than their native counterparts.

Our results coincide with previous studies [38] showing that physical activity is perceived by parents as a health benefit and should be practiced because of its physical and psychological effects. In addition, our participants perceived that physical activity also has a socializing effect. Similar results have been published by Carratalá and Carratalá [39] and Delgado [40], showing how physical activity is a socializing agent, in terms of integrating rules, as well as developing responsibility and a sense of companionship.

Physical activity is perceived as being very closely related to movement [41–44]. Our participants reported that in certain physical activities and sports there is a gender distribution. In Spain, the survey of sports habits published by the Ministry of Education, Culture and Sport [45], shows that boys mostly practice sports such as soccer, cycling and swimming, and girls mostly practice gymnastics, hiking and swimming.

In most interviews, participants compared their country of origin with Spain. They used the words "there and here" a lot. There is an important influence between what they knew before and what they know now, with important economic and cultural influences.

Parents find it difficult to be physically active. Previous studies describe how the lower the socio-economic level, the less possibility of physical practice there is [11,46]. Participants in our study acknowledged that the availability of financial resources significantly influences the decisions made regarding their child's physical activity. Our results highlight that participants prioritize the financial

well-being of the family over any health or leisure activity. Bhatnagar et al. [4] describe how this situation tends to change in the following generations, because having access to greater financial resources (a more stable livelihood) allows the family's priorities to be reorganized. Our results are in line with the qualitative study by Condon and McClean [12], describing that immigrants who are undergoing financial hardships must focus on improving the family economy, being unable to participate or promote the physical activity of their children. Foreigners do not have a socioeconomic level that allows them to justify an added economic expense, since the socioeconomic level of foreigners in Spain is low or medium [47]. According to the 2007 National Immigrant Survey, 40% of foreign nationals work in unskilled labor whereas 22% work in skilled labor [47]. These two categories have the lowest overall purchasing power [26].

There is also a barrier related to infrastructure. The neighborhoods (southern area of Madrid, Spain), where the interviews took place, are not adapted in terms of the number of parks, sports or leisure facilities. The physical environment, with large parks or natural spaces, is a key factor for good physical practice. If the physical (urban) environment often appears as a barrier to the practice of sports, physical and leisure activities, this is exacerbated in the case of immigrant parents, who are used to having a more open and natural physical environment in their countries of origin.

Lack of time is another limiting factor. The parents in this study described having long and overwhelming working hours that prevent them from doing any physical activity. Reimers et al. [8] reported that many parents cannot enroll their children in sports activities, let alone participate in them together. In addition, Reimers et al. [8] identified reduced physical activity related to the difficulty in accessing sports clubs and centers.

The proposed schedules for organized sports activities were considered by some of our participants as an added difficulty, as they described them as incompatible with their work schedules and family life rhythms. Previous studies [24,48,49] state that workloads and family burdens may prevent children and parents from practicing physical activity. In our study, five of the participants had three or more children. A large family could explain the difficulties in reconciling and organizing the family's daily routine when balancing the different activities, which could have an impact on enrolling their children in extracurricular or leisure activities.

Also, insecurity or fear of going out can influence the decision to take children to leisure areas. Owen et al. [50] and Motl et al. [51] describe insecurity as a barrier to sport. All these barriers coincide with previous studies [24,50–53] in research carried out in Spain, the United Kingdom and the USA.

The economic expense of certain physical activities (tuition, travel, etc.) could explain a decline in the practice of exercise among children of immigrant parents. In addition, the parent's financial situation, together with a precarious job situation and long working hours, and the need to earn money and save it, condition the ability to spend money on their child's physical activity practice. Condon and McClean [12] describe the difficulty of maintaining the physical health of family members, as opposed to the priority of financial health. Participants in the former study were aware of their children's lack of physical activity, and acknowledged that they did not get enough exercise because of financial hardship, time constraints or feelings of insecurity in some neighborhoods [24]. Our results show how participants prioritize work and economic status over their children's physical activity. This could be explained by the fact that our participants have been in Spain for less than five years. This means that the parents still have a precarious and/or vulnerable socioeconomic situation and need to find financial stability before they can incorporate the family and their children into other activities.

Finally, the importance of knowing the perspectives of parents regarding physical activity is underlined, as parents can play a crucial role in determining their children's sedentary behaviors. Two recent studies in Asia [54,55] showed the mutually interdependent relationship between parents' and children's physical activity and screen-viewing behaviors, highlighting the impact on children's health. The results show the potential mechanistic link between parents' perspectives on physical activities and children's health outcomes, showing that parents' screen-viewing behaviors and rules may be associated with their children's insufficient physical activity levels and overweight problems. In the opinion of the authors, future lines of intervention for pediatric overweight should

consider the inclusion of educational and behavioral programs designed for parents, instead of focusing only on children [54].

This study has several limitations. First, we were unable to carry out a homogeneous grouping of immigrant parents by geographically defined areas. Secondly, we did not identify whether the children of the parents were born in Spain or were transferred from their country of origin. The authors believe that this limitation is controlled, since the aim of the study was to describe the perspective of the parents and not that of the children. Additionally, the present study included 12 participants, and 20 interviews have been performed. Previous qualitative studies [27,33,56] have described how the total number of participants included does not depend on a previous calculation of the sample size, rather it is based on the saturation or redundancy of the information obtained in the interviews. Turner-Bowker et al. [57] reported that 92–97% of the saturation can be analyzed after interview numbers 15 and 20. In addition, our results cannot be extrapolated to all immigrant parents who have children, due to the design used. Nonetheless, these results may help professionals understand parents' experiences, and their difficulties in promoting physical activity and resources for their children. Finally, this study did not perform a cultural comparison between groups of native parents and immigrant parents.

5. Conclusions

This study describes the factors related to the physical activity of South American immigrant children from the parents' perspective. Our results revealed that the immigrant parents who were recruited in this study perceived that their children's physical activity was relevant and important to their future lives. However, certain barriers exist which limit and prevent the ability for foreign children to exercise, such as income, time availability or extended work shifts.

These results can be used to guide the programming and organization of physical activities in the school and community environment. It is also essential to provide policies to reconcile family and work, so that the lack of time is not a hindrance to the practice of physical activity. It is essential to create policies for financial aid targeted at the most disadvantaged families. In addition, it is necessary to invest in the creation of safe spaces and sports and leisure infrastructures to promote physical activity within the community.

A future line of research would be to carry out a cultural comparison between groups of immigrant and native parents, using a qualitative ethnographic design.

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3.3. ESTUDIO 3: The Perspective of Physical Education Teachers in Spain Regarding Barriers to the Practice of Physical Activity among Immigrant Children and Adolescents: A Qualitative Study



Article

The Perspective of Physical Education Teachers in Spain Regarding Barriers to the Practice of Physical Activity among Immigrant Children and Adolescents: A Qualitative Study

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Abstract: Physical activity (PA) contributes to the development of children and adolescents and to their mental and physical health. The practice of PA in the school context can contribute towards generating a more inclusive educational community for immigrant children and adolescents. The aim of this study was to describe the perspectives of Spanish physical education (PE) teachers on the practice of PA among immigrant children and adolescents. This research was a qualitative exploratory study. A purposeful sampling strategy was used. Data were collected through semi-structured interviews and field notes. Twenty teachers were recruited. An inductive thematic analysis and content analysis were applied. The following topics were identified: (a) Professional expectations; (b) Economic resources; (c) Integration; (d) Family; (e) Religious beliefs and practices; and (f) Gender difference. A predominance of positive emotions was identified in the narratives, and the most repeated words in word clouds were ‘Caribbean’, ‘Latin’, and ‘population’. These findings help to identify PA barriers for immigrant children and adolescents and may contribute to the creation of PA-based interventions in social and educational contexts.

Keywords: exercise; physical education and training; school teachers; child; adolescent; emigrants and immigrants; qualitative research

1. Introduction

Physical activity (PA) is defined as “... any bodily movement produced by skeletal muscle that requires energy expenditure” [1,2]. Physical activity is beneficial at all ages and is recommended as an active practice in early childhood, necessary for the healthy development of both children and adolescents. [3–5]. In addition, it prevents diseases such as heart disease, hypertension, or obesity in adulthood [3–5]. Furthermore, positive effects on mental health have also been demonstrated, such as a decreased presence of anxious-depressive symptoms in children and adolescents [6,7]. Physical inactivity and sedentary lifestyles have been identified as health-related behaviors that negatively impact

quality of life during childhood and youth [2–4], noting that worldwide, 80% of adolescents are not sufficiently physically active [8]. Thus, the current recommendation for ages 5 to 17 is an average of 60 min per day of moderate to vigorous PA, mainly aerobic, at least 3 days per week [1,8].

The General Assembly of the United Nations adopted the 2030 Agenda for Sustainable Development Goals, highlighting how PE and opportunities for PA in schools contribute to promoting health and well-being and ensuring quality education in educational communities with different social realities [2,9]. In Europe, the increased immigration of recent decades has led to a large increase in cultural diversity among school-age students in educational contexts [10]. Consequently, educational communities formed by teachers, parents and students are a key element for integration and social cohesion, where the role of PE classes and PE teachers in the generation of inclusive communities for immigrants is highlighted [10]. The practice of PA in the school environment can contribute to improving interpersonal relationships and respect among the different perspectives and cultures that are part of the educational community [11,12], thus fostering feelings of inclusion and belonging to the community [13]. The feelings of inclusion and belonging favors the emotional well-being of immigrant children and adolescents and promotes and facilitates their adaptation to societies they have emigrated to [13].

In Spain, the practice of PA in the school environment has been studied from the perspective of children [14], parents [15–17] and teachers [10,15,18,19], both in the general population [14,17] as well as specifically referring to the immigrant population [10,15,16,18,19]. In the study by Martínez-Andrés et al. [14] on the perception of the barriers encountered for the practice of PA in children between 8 and 11 years of age, the opportunities for the practice of PA are determined by the schedules established by their parents, in which the difficulty of reconciling work and family life and the prioritization of other types of academic activities over the practice of PA, together with the perceived danger of the community environment, favor more sedentary habits among the children. These results are consistent with studies carried out from the parents' perspective [15–17], in addition to identifying a greater difficulty for their children to participate in certain physical activities due to economic barriers [15–17], a greater difficulty of reconciling single-parent families, restriction of PA among children in informal contexts as a form of punishment, a lack of communication between the school and the family, the influence of the mass media [17], inadequacy of infrastructure and lack of natural environments for practice [15–17], excessive homework [15,16] and gender stereotypes and gender-related choices [10,15–17,20]. Moreover, Tamura et al. [21] identified that social environments of violence and insecurity in the neighborhoods where children and adolescents live are associated with a decrease in the practice of PA, representing the main structural barrier. These same authors recommend improving the spaces in which PA is carried out, such as parks and other open-air venues. Previous studies [22,23] point to the presence of crime in the neighborhood, the precariousness of the facilities where PA is performed [22,23], and high-traffic levels [23] as barriers to performing PA in children and adolescents in immigrant settings. Recently, Hu et al. [24], in their systematic review on factors influencing the performance of PA in children and adolescents, pointed to unsafe neighborhoods and inaccessibility of PA venues as barriers.

From the teachers' point of view, different perspectives have been identified, both among PE teachers and among teachers of subjects that take place in the regular classroom (subjects such as mathematics, science, etc.) [18]. For example, the imbalance between previous schooling and the level of the course in which they are enrolled, and the lack of knowledge of the language, are identified as elements that distort children's learning, according to teachers of classroom-taught subjects, while this issue is not perceived as a problem in the case of physical education (PE) classes [18]. Physical education teachers have been found to have an important role in promoting interculturality in Spanish schools [19]; therefore, the research on their perspective regarding PA practice in this population should be further expanded.

This study was based on the following research questions: How do PE teachers perceive PA in immigrant children and adolescents? What does it mean to them? Answering these questions may help to explain the role of PE teachers and their positioning regarding the promotion of PA practice among immigrant children and adolescents.

The aims were: (a) to describe the perspectives of PE teachers on PA and (b) barriers perceived and (c) to analyze the word frequency from interviews, to assess emotions and (d) to describe the polarity of their perspectives regarding PA.

2. Materials and Methods

2.1. Design

This study used a qualitative exploratory design [25,26]. Qualitative studies are used to describe people's experiences and perspectives on programs, complex phenomena involving social context, culture, and education. [25,26]. The design and manuscript structure were inspired by qualitative studies reported by Marconnot et al. [15,16].

The SRQR (Standards for Reporting Qualitative Research) guidelines [27] and the COREQ (Consolidated Criteria for Reporting Qualitative Research) international recommendations were followed [28]. Furthermore, the Guba and Lincoln [25,26] criteria for ensuring the trustworthiness were followed. The various techniques performed to monitor reliability are described in Table 1.

Table 1. Trustworthiness criteria.

Criteria	Techniques Performed and Application Procedures
Credibility	Investigator triangulation: Team meetings were organised during the thematic analysis, the results were compared, and the final results were identified.
Transferability	In-depth descriptions of the study, providing data and describing the study design and its different sections (context, research team, reflexivity process, sampling, inclusion criteria, data collection, and analysis).
Dependability	Audit by an external researcher, responsible for the assessment of the study protocol, with a special focus on the method and process of implementation during the study.
Confirmability	Investigator triangulation, data collection and analysis triangulation (thematic and content analysis). The process of reflexivity was conducted through the description of the researchers' positioning; reflective debriefing by the researchers during data collection and analysis.

2.2. Context

The community of Madrid recorded a foreign population of 15% (1,026,333 inhabitants) in 2020 [29]. Of these, 52.5% were women, 14.15% were under 16 years of age, and 3.48% were between 16 and 19 years of age. The most frequent nationalities among the total foreign population in Madrid were Romania (18.21%), Morocco (8.18%), China (6.41%), Colombia (6.2%), Venezuela (5.91%) and Peru (4.24%). Currently, in Spain, the total number of foreign students is 862,520 (in the community of Madrid 151,603) [30]. In this community, the number of foreign students enrolled in primary education is 59,944 and in secondary education 31,295 [30]. Regarding the number of teachers, in the community of Madrid there are 29,080 teachers in primary education and 21,902 in secondary education [31].

2.3. Sampling and Participants

In qualitative studies, sampling is aimed at selecting those participants who have the relevant information about the phenomenon under study (PA practice) [32]. In the present study a non-probabilistic and purposeful sampling strategy were used based on their relevance to the research question rather than representativeness [32]. The inclusion criteria were: (a) PE teachers working in the community of Madrid, (b) who were actively working at an educational center during the study period, and (c) who had over four years' teaching experience. The exclusion criteria were: (a) teachers who did not teach PE, and (b) not signing the informed consent.

Sampling continued until the ongoing analysis revealed data redundancy [32]. Finally, 20 participants were included and none withdrew from the study.

2.4. Data Collection

Semi-structured interviews were used, which followed a question guide oriented to specific areas of interest [25]. The question guide was constructed based on the literature review [15,16] and the experience of the researchers [25]. After obtaining personal and professional data from the participants, the interview began with an opening question: "Please, can you share with me your personal perspective regarding teaching PA to immigrant children and adolescents?" After this, open-ended follow-up questions were used to obtain detailed descriptions: 1. "Could culture or ethnicity influence the acquisition of habits, such as PA?"; 2. "What role do parents play in immigrant children and adolescents' adherence to PA?"; 3. "While teaching PA, have you experienced any critical event or relevant moment?"; 4. "What do you think are the keys to promoting PA in immigrant children and adolescents?"; 5. "What factors or elements can be considered facilitators or barriers in the acquisition of PA among immigrant children and adolescents?" During the interview, the prompt "Please tell me more about that" was used to encourage participants to explore specific aspects in greater depth.

The interviews were tape-recorded and transcribed verbatim. Overall, 1026 min of data collection were recorded, with a mean of 51.3 min (SD 9.72). All interviews were held at the schools. We used researcher field notes as a secondary source of information to provide more in-depth information [21]. All interviews were conducted in Spanish.

2.5. Data Analysis

The interviews were analyzed by means of an inductive thematic analysis [25,32] for the identification of the relevant themes obtained from the interviews, and a content analysis [33] of the participants' words and narratives. From the content analysis we obtained: (a) a cloud of the most used words, and (b) identification of the feelings of the participants and the polarity of their narratives. The use of content analysis in interviews and written texts through statistical techniques is used in discourse analysis and qualitative studies as a method of deepening and triangulating the analysis [33].

Full transcripts were made of each in-depth interview and of the researchers' field notes [25,32]. Thematic analysis [25] consisted of identifying text fragments with relevant information to answer the research question. From these narratives, the most descriptive contents (meaning units/codes) were identified. Subsequently, these units were grouped by their common meaning (common meaning groups) and/or similar content [25,32]. During coding, 1049 codes were identified. Thematic analysis was applied separately to interviews and field notes by D.P.-C., J.N.C.-Z. and R.M. Joint team meetings were held to combine the results of the analysis and discuss data collection and analysis procedures. In these team meetings the final themes were displayed, combined, integrated and identified. In case of divergence of opinions, the identification of the theme was based on consensus among the members of the research team. Finally, six themes were identified. See Supplementary file, Figure S1 Example of codification process.

For the statistical analysis of the qualitative content [33], the software R version 3.5.1 (R Foundation for Statistical Computing, Institute for Statistics and Mathematics, Welthandelsplatz 1, 1020 Vienna, Austria) was used. The text of the interviews was lemmatized for analysis. A word frequency analysis was carried out using the tf-idf algorithm (term frequency-inverse document frequency), and a wordcloud representing the most frequent use of words within the participants' interviews was obtained. Emotion analysis was performed using Bing [34], Afinn [35] and National Research Council Canada (NRC) dictionaries [36–38]. Text polarity was analysed, using the SODictionaries V1.11Spa dictionary as amplifiers and decrementators, the Bing dictionary [36–38], and as deniers, those proposed by Vilares et al. [39]. For the analysis of polarity (acceptance-rejection) 4 stages were used. In the first stage, a file was created with the text of the interviews, broken down by

sentences for textual analysis. In the second stage, polarity was calculated using the Bing Sentiment Dictionary, amplifiers and de-amplifiers of SODictionar-iesV1.11Spa [36–38] and the deniers proposed by Vilares et al. [39] (Figure S1). In the third stage, the scatter diagram of the sentences in the text in relation to neutrality was calculated to identify positive or negative tendencies. Finally, the evolution of emotional valence (positive-negative) was shown throughout the interviews. Fourier transformation was applied to confirm the polarity trend.

2.6. Ethics

This study was approved by the Research Ethics Committee of the University Rey Juan Carlos (code: 3001201702417). The study followed the principles of the Declaration of Helsinki. In addition, the present study complied with the Spanish Personal Data Protection Act [40]. All participants provided written informed consent before they participated in the study.

3. Results

The study began in September 2019 and ended in September 2020. Twenty participants were included, with a mean age of 40.9 years (SD 6.6) and with 15.55 years (SD 9.2) of PE teaching experience. Of the 20 participants, 13 were male and 7 were female. All participants were currently working in the southern area of the community of Madrid (Spain). Of the participants included, 8 did not believe in any religion, whereas 12 considered themselves to be Catholic Christians. Of the latter, six defined themselves as practising Catholics.

3.1. Results of the Thematic Analysis

The themes depict the teachers' perspective, obtained after analysis of the researchers' interviews and notes. Six barriers to PA practice were identified: Professional expectations, Economic resources, Integration, Family, Religious beliefs and practices, and Gender difference.

3.1.1. Future Professional Expectations

The participants reported that the parents of immigrant children and youth prioritize other subjects for their children over PE to avoid school failure, especially in the Asian community. Other extracurricular activities, such as English, have more weight than the practice of PA.

The participants spoke of how families with higher levels of education assign higher value to the practice of PA. In addition, from the teachers' perspective, many families believe that the practice of PA is not necessarily conducive to getting a good job or being successful in society. Moreover, some families reportedly fail to consider the health benefits of PA. In turn, the teachers perceived that certain young people consider PA as a form of leisure, rather than a way of acquiring healthy habits for their lives. In other cases, teachers perceived that some young people view PA as a strategy to avoid family and social conflicts. Thus, PA is seen as a tool that helps young people to overcome problems arising within the family.

3.1.2. Financial Resources

The study participants described that most immigrant families have low or limited financial resources. Furthermore, the teachers pointed out that having low financial resources influences the parent's ability to purchase clothing, footwear, and sports equipment. Sometimes, the practice of PA implies a substantial economic expense, comprising school or club enrollment fees and the payment of the monthly fee. Teachers reported that this is an expense that many families cannot afford. In addition, in the case of large families, the financial cost of sports equipment is multiplied and becomes a substantial burden for families.

“Even if the activities are cheap, for an immigrant population that is short of money, spending €10 a month is a lot. If, in addition, there are 5 children, it is €50 a month and that is a lot of money. So, they aren’t going to do it.” (Teacher#0005#).

Another example of this situation is the performance of optional educational-sports activities at the high school, such as skiing, which immigrant students rarely have access to due to a lack of economic resources. The participants described that, as an alternative, many immigrant students practiced unregulated PA such as playing in the street. Teachers reported that after-school PA programs at the Institutes for the Promotion of Physical Activity and Sport (Institutos Promotores de la Actividad Física y Deporte -IPAFD) promoted with public funds by the community of Madrid are mainly used by immigrant students. These programs cost €14 per year for 2 h of PA per week. This is an expense that families can afford.

3.1.3. Integration

Participants perceived how some communities tend to be quite “close-knitted” and this can lead to difficulties for the integration of children and youth and their ability to practice PA. Indeed, the more integrated the children/youth are within the group and in class, the more they are involved in PA. Moreover, participants narrated how immigrant students tend to form groups among members of the same community, thus an invisible barrier is formed between Spanish students and students from other communities. Some participants used the term “invisible barrier” and this separation was especially identified in young people belonging to the Asian and Maghrebi communities. Some participants mentioned the presence of a kind of “ghetto” phenomenon in PA.

Furthermore, the participants stressed that students who have been in Spain longer, those who are second generation citizens, or who arrived during their childhood display less rejection towards PA. In particular, children and young people from the South American community were highlighted as being able to integrate more easily, because they share a common culture with the Spanish children. In addition, the participants reported how extracurricular activities were identified as a way to promote social integration. Thus, many students enroll in the programs of the IPAFD to integrate better into the class and make friends.

3.1.4. The Family

All participants agreed that the influence of families is key to PA. Thus, the families represent a role model for young people. If the father or mother does not have the habit or possibility of practicing PA, it is difficult for the children to practice a sport.

“It’s like a vicious circle. Parents don’t do any PA and in the end the children don’t do any PA either. And since the children don’t do anything, the parents don’t practice either.” (Teacher#0013#).

Another important point stressed by participants was the excessive protection of the families towards girls in relation to boys, when carrying out any type of extracurricular activity. Boys are allowed to move with greater freedom than girls. This perception of the protectionism of families towards girls was observed specifically in the Maghrebi and Asian communities. The participants agreed that the family may perpetuate certain social and cultural stereotypes that place girls at a disadvantage when practicing PA. In addition, the participants pointed out that often the responsibility for the child’s education falls mainly on the mother, due to the physical absence of the father. This means that, in addition to the responsibility of supporting and caring for the rest of the family, the mother relies on the daughters’ help for the performance of household chores or to support in the family business.

3.1.5. Religious Beliefs and Practices

The teachers reported that in some communities, religious practices can hamper or limit the practice of PA for girls, particularly in the Maghrebi community. From the

participants' perspective, while there are some sports practices that Maghrebi girls can perform with greater or lesser comfort due to the use of other types of clothing, not strictly sportswear, certain sports may cause conflicts with families, such as swimming.

The participants felt that some families may prioritize certain religious practices or religious interpretations over their daughters' education and learning. This is accentuated during menstruation, as girls begin to wear certain clothes according to their religious beliefs, and in some there is a rejection of PA, sometimes motivated by stereotypes about PA.

"When they start wearing the veil everything changes. I have seen this change in them in the same class, from being a vital girl, the clothes change, the clothing changes, the temperament changes." (#Teacher0010#).

"... girls are afraid of losing their virginity while practicing gymnastics." (Teacher#0001#).

On other occasions, the participants narrated that there are certain practices, such as Ramadan in the Maghrebi community, which involves fasting, and may condition the ability to be physically active during PE classes.

3.1.6. Gender Differences

The teachers reported that there are marked gender roles for the practice of PA. Thus, certain sports are considered to be more suited to boys or girls, especially among the North African and South American communities.

"They have very much accepted that this is a girl's thing and that is a boy's thing." (Teacher#0005).

The participants explained that the physical condition of immigrant girls was poorer compared to their Spanish counterparts, in addition to difficulties in hand-eye coordination, rhythm and motor skills. This was especially related to girls from the Maghrebi and Asian communities. The teachers explained the subject of PE in the young girls' countries of origin was less intense, and that some girls had never developed a habit for practicing sports. In the interviews, the low level of physical fitness only referred to the female population; the participants did not make any comments regarding the boys.

The participants explained that some girls choose to exclude themselves from practicing PA, even during recess or free time, leaving the physical space of the school (playgrounds) to allow the boys to practice PA. The teachers felt that girls perceive themselves as clumsier, or with less skills or abilities than boys. Sometimes girls are even ignored during PE classes or recess when sharing games or sports activities with them.

Some participants believed that the family is not supportive of girls practicing PA, through overprotective attitudes, cultural reasons or religious beliefs.

"It is a problem of machismo. We can hide it, but it is full-blown machismo, the family can participate and perpetuate certain behaviors with girls." (Teacher#0004#).

As a result, many girls are more passive and do not show initiative when it comes to practicing PA; thus, they display signs of apathy or even rejection.

"Girls tend to be very passive. Physical activity represents a rejection, a refusal to move. For them it seems to be an obligation." (Teacher#0013#).

3.2. Results of Word Frequency (Wordcloud)

The word cloud revealed that 'Caribbean', 'Latin' and 'population' were the most repeated terms, followed by 'passive', 'Africa', 'street', 'movement' and 'overweight'. See Figure 1.



Figure 1. Word cloud from interview responses after applying the tf-idf algorithm.

3.3. Results of Emotions and the Polarity (Acceptance-Rejection) Analysis

The sentiment analysis regarding the research questions showed a prevalence of positive emotions (Figure 2A,B). In contrast, according to the Affinn dictionary there is a slight predominance of negative emotions, especially scores of -1 , against positive scores of 1 and 2 (Figure 2C). The associated emotions are those of trust and anticipation, followed by fear and joy (Figure 2A).

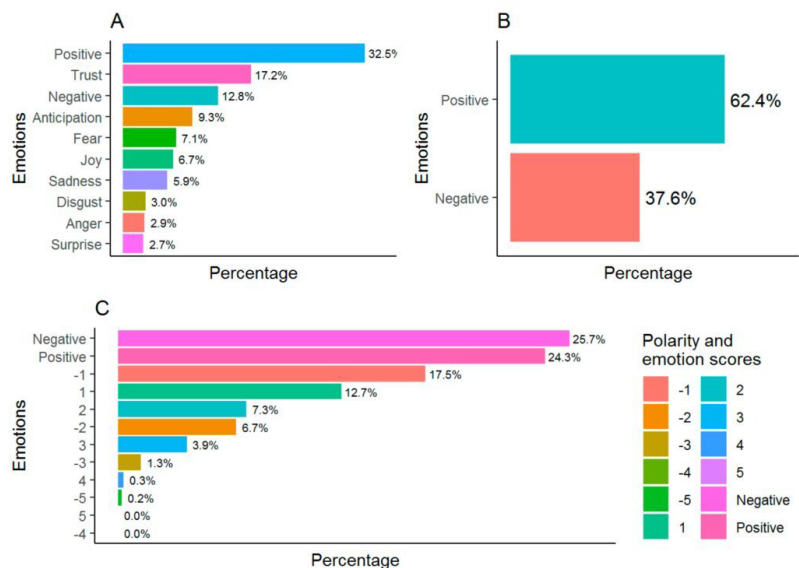


Figure 2. TNRC (A), Bing (B) and Afinn (C) dictionaries sentiment scores.

The interviews presented a polarity of 0.049 ± 0.339 , reporting a slight trend to more positive emotions, mainly on account of the presence of extreme positive values (Figure 3) regarding the research questions.

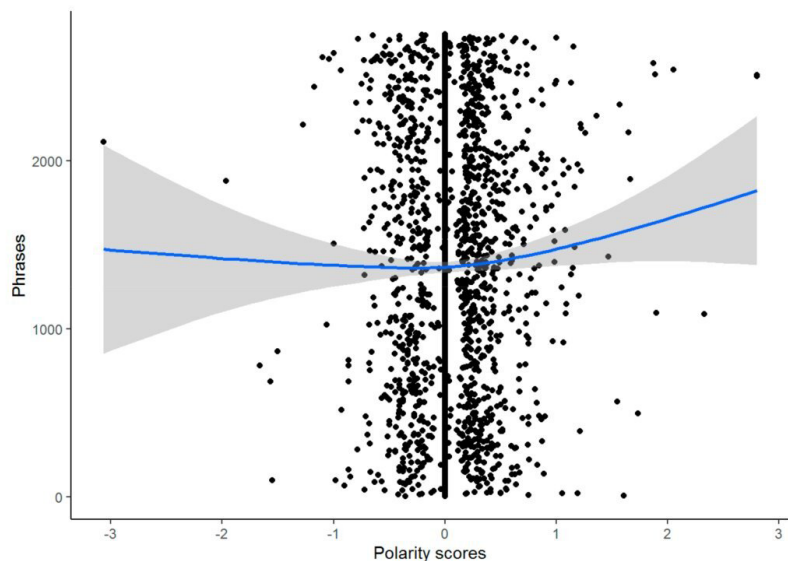


Figure 3. Polarity by phrases.

4. Discussion

Our findings highlight that, according to the perspective of PE teachers, the educational level of immigrant parents can influence their children's PA. The survey on the immigrant population in the community of Madrid in 2016 [41] shows that 30% of the immigrant population presented a basic level of education. In Spain, the 2017 national health survey [42] described that the practice of PA was inversely proportional to the families' level of education. The authors believe that a low level of education could explain a lack of awareness of the benefits of PA on the child's health and development. The participants in the present study perceived how immigrant families linked PA to leisure and entertainment, giving more importance to other subjects. Along this line, Trigwell et al. [43], show how families from different ethnic communities prioritize educational achievement (based on subjects such as mathematics, science) over PA.

Our results show how family finances can influence the ability to engage in certain physical-sports activities. There are no published data to date on the enrollment of immigrant children and youth in IPAFD programs. The national survey of immigrants in Spain [44] describes that 40% of the immigrant population perform manual or low-skilled jobs, and 22% perform manual jobs that require specific prior training. This emphasizes that many immigrants hold precarious jobs, with low incomes and long working hours. The authors believe that families enter a vicious circle, where the lower the level of education, the less qualified and less well paid the work is, resulting in a lack of sufficient economic resources to enroll their children in extracurricular sports activities, and a decreased practice of PA.

Physical education and sport are important tools in the process of integrating people into society. Lleixà [45] describes how PE is a space for meeting and communication that promotes the relationship between people from different cultures. According to the UNESCO, one of the objectives of PE and sport is to promote proximity between people and individuals [46]. In addition, the International Federation of Physical Education [47] establishes that PE must be a means of combating discrimination and social exclusion. Previous studies [48] show how certain communities may have a more isolated character and less interaction with other communities. Acculturation or assimilation of the host culture of immigrant families is related to the integration of children into society and can be

a factor in the acquisition of habits, such as the practice of PA [49,50]. Gerber et al. [49] point out that the higher the degree of acculturation of people in a new society, or the longer the stay in the country, the greater the possibilities of practicing PA. Moreover, the lower the level of acculturation in the population, the lower their participation in PA [51–53].

Additionally, there are differences between children and adolescents concerning their attitude towards PE lessons. Previous studies report that interest towards PA practice and PE decreases as students get older [54–56]. Gómez Rijo et al. [56] describe how the motivation of adolescents in secondary education towards PE practice is lower than that of primary school students. According to Fraile Aranda & Catalina Sancho [57], primary school students tend to feel more skillful at a sporting level than secondary school students. Overall, secondary students have a lower self-concept regarding their ability to perform PA compared to younger students [57].

Among teachers, there are also differences in their perception and orientation towards PA in primary and secondary education influenced by the school curriculum [58,59]. Primary PE teachers orientate learning towards attitudinal and self-realization goals, while secondary school teachers give more importance to procedural and conceptual learning, developing a greater social responsibility [58]. As a result, primary school teachers are more oriented towards games and global developmental work, while secondary school teachers are oriented towards more social skills development. However, Sicilia Camacho et al. [59] point out that in primary education, priority should be given to the development of social relations whereas in secondary education the focus should be on the acquisition of healthy habits.

Another key point is the role of parents as role models for PA practice. Previous studies [60,61] show how parents are an influence on adherence to PA. The more PA practiced by parents in their free time, the more likely their children are to develop similar habits. The authors believe that when parents practice PA, the family has a positive attitude towards PA and the subject of PE, and this can facilitate the practice of PA in their children. However, it should be emphasized that cultural components and/or beliefs can condition PA, particularly in the case of women. This may lead to the existence of a cultural conception of motor activity or motor development in children that is different from that of girls and boys [48,62]. Previous studies [18,63] describe how immigrant girls present a lower level of physical condition and less motor skills when it comes to collective activities, which may result in inhibition and self-exclusion from the sports space.

Most of the participants described religious beliefs as a possible barrier to the practice of PA, in relation to girls from the Maghrebi community. Capllonch et al. [64] describe how certain religious beliefs may limit the practice of PA among female members of the community, aspects such as exposing naked body parts (swimming, athletics), training or sharing PA with males, could prevent girls from participating in sports activities [61,65]. Moreover, previous studies [62] have stressed the need for teacher training on the reality of immigration and especially on the understanding of the cultural aspects of the Maghrebi and Muslim communities. Dagkas et al. [62] in England, describe how PA practice can be adapted for Maghrebi girls while respecting cultural and religious precepts and complying with school rules.

According to our findings, teachers report that girls show less initiative for practicing PA. In Spain, Martínez Baena et al. [66] describe how in students over 13 years of age, 23.1% of the girls practiced PA through obligation, whereas 15.7% acknowledged that they did not practice PA out of laziness. In addition, Flores [48], in a study on multicultural reality and PE teachers, described how immigrant girls claimed to have very little interest and passivity towards the subject of PE.

Regarding differences in teachers' and parents' perspectives on PE, Porcuna & Rodríguez-Martín [67] reported that both parents and teachers agree that they can act as role models for children and adolescents, which can positively and negatively influence them to practice PA. Similarly, they agree that there are environmental barriers to PA, such as high workloads, lack of parental time, or the lack of spaces where PA can be carried out [67]. However, in the same

study, Porcuna & Rodríguez-Martín [67] described that while teachers demanded greater collaboration between parents and teachers, parents demanded to receive more information from teachers on how to promote PA outside the school context [67]. Similarly, from the parents' perspective, sex and gender are identified as determining factors in the practice of PA [10,15–17,20], along with economic barriers and lack of infrastructure for PA [15–17].

It should be noted that of the three dictionaries used to identify the participants' feelings towards the research questions, two show a positive tendency in their discourse on PA and immigrant children and youth. Only one of the dictionaries used, Afinn, showed negative feelings, but with a percentage very close to positivity. Even though the teachers in the thematic analysis displayed a critical view of the practice of PA in immigrant children, identifying numerous barriers, their discourse tended to be positive, based on the text analysis carried out.

The results of this study reveal the perspective of PE teachers on aspects that may condition the practice of PA in immigrant children and adolescents. This perspective is the object of the study; however, it does not mean that it represents, coincides with or is contrary to the perspective or beliefs of other participants involved in the practice of PA, such as parents and students. This study has several limitations. First, a small number of participants were included. The present study has included 20 participants. Previous qualitative studies [25,30] describe how the total number of participants included does not depend on a previous calculation of the sample size; rather, it is based on the saturation or redundancy of the information obtained in the interviews. Turner-Bowker et al. [68] reported that 92–97% of the saturation can be analyzed after interview number 15 and 20. Secondly, the teachers included in the study were not part of the liaison classrooms, classrooms intended for the support and adaptation of immigrant children/adolescents joining the school. This could influence the results. In addition, teachers were not asked about the process of teaching PE to children and adolescents, which may reveal differences in the performance of PA. Finally, the qualitative nature of this study, gathering the perspective and experiences of a group of PE teachers concerning a certain phenomenon, cannot be generalized. However, it allows us to gain a deeper understanding of the phenomenon from their perspective.

5. Conclusions

Our findings help further our understanding of the barriers related to PA in immigrant children and youth in Spain such as giving more importance to certain subjects because of their job prospects, having low economic resources, the lack of role models in the family for the practice of PA, the formation of closed groups for PA practice among students, and the limitation of PA in girls due to gender differences. One of the strengths of this study is that it describes the barriers for performing PA among immigrant children from the perspective of the PE teachers.

Concerning the implications for teaching, these findings may help PE teachers to identify elements such as family issues, beliefs, and economical issues that can condition PA. Furthermore, these results can help young or inexperienced teachers to plan and program the teaching of PE towards the needs of immigrant pupils by promoting greater participation, considering their possible limitations and perspectives. Further, these findings may be considered for the design and implementation of PA programs in certain social contexts. It is important for PA programs to: (a) analyze the academic curriculum and devote increased time to PA, (b) provide financial support to families who have limited resources in order to cover any associated costs related to children's sports practice, and (c) promote the organization of sports activities and multicultural games in community settings.

Future lines of research should include the perspective of other participants, such as students and parents, regarding PA. In addition, it is important to examine the barriers for practicing PA in different contexts (school environment, neighborhood), and identify any obstacles for the practice of PA among immigrant students of different nationalities, also from a gender perspective.

Supplementary Materials: The following are available online at <https://www.mdpi.com/article/10.3390/ijerph18115598/s1>, Figure S1 Example of codification process.

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4. DISCUSIÓN

4.1. Discusión de los resultados

Con la presente tesis, se han identificado barreras para la promoción de la AF en los niños y jóvenes inmigrantes. Esas barreras han sido percibidas y narradas por las madres y padres, los profesores de EF, directores de los centros escolares y por líderes religiosos de su entorno.

Esta tesis continúa una línea de investigación sobre los factores que impactan e influyen en la práctica de la AF y la implementación de un estilo de vida saludable en niños inmigrantes (Masoumi, 2017; Taverno Ross et al., 2018; Trigwell et al., 2015). Estudios anteriores sobre la AF en niños y adolescentes (Bhatnagar et al., 2015; Brewer & Kimbro, 2014; Gualdi-Russo et al., 2014; Labree et al., 2014; Martínez-Andrés et al., 2020; Mude & Mwanri, 2016) muestran cómo los niños y adolescentes que proceden de familia inmigrante practicaban menos AF en comparación con los niños y adolescentes nativos.

Los estudios uno (Marconnot et al., 2019) y dos (Marconnot et al., 2020) muestran como las familias de los niños inmigrantes reconocen que existe una desigualdad por sexo de práctica de la AF entre los niños y las niñas. Estos resultados vuelven aparecer en el estudio tres (Marconnot et al., 2021), donde los profesores reconocen que la práctica de AF y su aplicación es diferente entre sexos. La existencia de desigualdad en la práctica de AF entre sexos puede considerarse como un fenómeno global (Althoff et al., 2017). Estudios previos (Sharara et al., 2018; Trigwell et al., 2015) muestran que esta diferencia de género existe en el recreo donde varía la cantidad de AF así como el tipo de AF realizada. Los participantes profesores del estudio tres (Marconnot et al., 2021) además añaden que las creencias religiosas pueden ser una barrera a la práctica de AF, sobre todo en las niñas de la comunidad magrebí. Capllonch et al. (2007) describen cómo ciertas creencias religiosas pueden limitar la práctica de AF entre los miembros femeninos de la comunidad. Además estudios anteriores (Flores Aguilar, Prat Grau, & Soler Prat, 2016; Jordán, 2007) describen que las niñas inmigrantes presentan un menor nivel de condición física y menos habilidades motrices a la hora de realizar actividades colectivas, lo que puede suponer una inhibición y autoexclusión del espacio deportivo.

La EF y el deporte son herramientas importantes en el proceso de integración de las personas en la sociedad. Lleixà Arribas (2006) describe cómo la EF es un espacio de encuentro y comunicación que favorece la relación entre personas de diferentes culturas. Según la UNESCO (2021) uno de los objetivos de la EF y del deporte es promover la proximidad entre las personas y los

individuos. Además, la Federación Internacional de Educación Física (FIEP, 2000) establece que la educación física debe ser un medio para luchar contra las discriminaciones y la exclusión social. En el estudio dos (Marconnot et al., 2020), los padres percibieron que la AF tiene un efecto socializador importante en la vida de sus hijos en la nueva vida que les ofrece la inmigración. La aculturación de la familia pasa también por la integración social de los niños en la escuela y en particular por la práctica de AF en la asignatura de EF. Existe un enfoque similar en el estudio tres (Marconnot et al., 2021) desde la perspectiva de los profesores de EF. Para ellos, la AF y la EF (en particular) son herramientas importantes para permitir la integración de los jóvenes inmigrantes en la nueva sociedad en la cual viven y puede ser un factor importante de adquisición de hábitos saludables, como es la práctica regular de una AF. Gerber, Barker, & Pühse (2012) señalan que cuanto mayor es el grado de aculturación de las personas en una sociedad mayores son las posibilidades de práctica de AF. Por lo que cuanto menor es el nivel de aculturación de la población, menor es su participación en las AF (Brewer & Kimbro, 2014; Gualdi-Russo et al., 2014; Yi, Roberts, Lightstone, Shih, & Trinh-Shevrin, 2015).

La influencia de los padres y madres podría ser una explicación a la baja participación de los jóvenes inmigrantes en la AF. Estudios anteriores (Andermo, Rydberg, & Norman, 2021; Bringolf-Isler et al., 2018; Grant, Swaney, Harris, Burdeau, & Brown, 2016; Neshteruk et al., 2017) han examinado la influencia de los padres en la AF de los niños. El grupo de estudio SOPHYA (Bringolf-Isler et al., 2018) informó como la adquisición de modelos parentales frente a la AF es relevante para la práctica de AF de los niños/as. Por lo que el estudio dos (Marconnot et al., 2020) subraya la importancia de conocer las perspectivas de la familia (padres y madres) respecto a la AF ya que padres y madres desempeñan un papel crucial en la determinación de las conductas sedentarias de sus hijos. En el estudio tres (Marconnot et al., 2021) los profesores de EF, muestran que la actitud de las familias frente a la AF es fundamental. Dar el ejemplo a sus hijos es un paso obligado para que los niños y jóvenes tengan una AF regular con el objetivo de tener un comportamiento de hábitos saludables. En una investigación cualitativa reciente (Satija et al., 2018) los jóvenes describen como los padres activos son un factor positivo que aumenta la motivación para una práctica de AF. Varios estudios (Malek, Nyberg, Elinder, Patterson, & Norman, 2021; Mittal & Jain, 2021; Tomayko et al., 2021) muestran la importancia que tiene de integrar a los padres en proyectos educativos para la prevención de hábitos saludables en los jóvenes y un control de la obesidad. Por lo que la organización de la vida familiar es otro punto clave para la adquisición de hábitos saludables. Las interacciones familiares y el tiempo pasado juntos a través de comidas y cenas en familia son factores claves para la salud familiar en términos de nutrición y de AF (Wäsche, Niermann, Bezold, & Woll, 2021) y tiene consecuencias en los comportamientos individuales de sus miembros.

El tercer artículo (Marconnot et al., 2021) además, se describe la perspectiva de los profesores en relación con el nivel educativo de los padres y madres y su posible repercusión en la AF. Los profesores creen que un bajo nivel educativo de los padres y madres inmigrantes influye sobre la AF de sus hijos lo que completa la información inicial avanzado en el artículo uno (Marconnot et al., 2019) que los padres y madres son modelo parental que seguir por los niños.

Otro punto importante y recurrente en los tres estudios realizados (Marconnot et al., 2019, 2020, 2021) es el nivel socioeconómico de las familias inmigrantes. En los tres artículos (Marconnot et al., 2019, 2020, 2021) tanto las familias como profesores explican que un nivel socioeconómico bajo limita la práctica de AF. En el estudio dos (Marconnot et al., 2020) las familias describen como el cambio de país se realiza principalmente por razones de mejora del nivel económico de la familia, por lo que la práctica de AF no es prioridad para ellos. También, muchas familias muestran que la falta de recurso económicos es un freno a la práctica de AF para sus hijos. Los padres y madres explican que la práctica de AF tiene un coste, por un lado, económico (compra de ropa y material deportivo) y por otro lado, por el tiempo que se debe dedicar a la práctica de AF por sus hijos/as. Estudios anteriores (Gonzalo-Almorox & Urbanos-Garrido, 2016; Molina-García et al., 2017) demuestran que un nivel socioeconómico menor, disminuye la posibilidad de práctica deportiva. Por lo que los profesores explican en el estudio tres (Marconnot et al., 2021), que los programas deportivos extraescolares (IPAFD) están más concurrido por la población inmigrante que por la población autóctona. Los profesores explican que el precio de esos programas y la facilidad de compaginarlo con la vida laboral de los padres hace que se apuntan principalmente alumnos de origen inmigrante o con nivel socioeconómico bajo. Por lo que, para muchas familias y jóvenes, los programas IPAFD son los únicos momentos donde pueden practicar una AF extraescolar.

En los estudios uno y dos (Marconnot et al., 2019, 2020), los participantes muestran que los barrios donde viven no presentan las condiciones idóneas, ni cuentan con las infraestructuras necesarias para la práctica de AF. Los padres y madres del estudio dos (Marconnot et al., 2020) explican que existe una falta de parques, instalaciones deportivas o de ocio. El entorno físico, con grandes parques o espacios naturales es un factor clave para una buena práctica física. Estudios anteriores (Creatore et al., 2016; Masoumi, 2017; van Sluijs et al., 2021) muestran cómo el barrio, la zona de la ciudad en la que se encuentran, la presencia de parques, el transporte urbano accesible y la planificación urbana integral de apoyo a la AF (*walkability*) influyen en la realización de AF. Sin embargo, en el estudio tres (Marconnot et al., 2021), los profesores no creen que en los barrios donde viven las familias inmigrantes (Zona sur de Madrid) sean barrios con problemas de infraestructuras deportivas o de parques de ocio. Los profesores

expresan que existe muchas infraestructuras deportivas, gimnasios (incluso *LowCost*), parques, zonas deportivas al aire libre o polideportivos. Las perspectivas entre las familias (estudio 1 y 2) y los profesores de EF (del estudio 3) son diferentes en este punto. Los profesores insisten más bien sobre los problemas económicos de las familias a acudir a dichos centros o en las dificultades de conciliación familiares entre las horas de trabajo y el cuidado de los hijos. Los profesores del estudio tres (Marconnot et al., 2021) están de acuerdo en que las familias inmigrantes tienen una falta de tiempo por razones laborales. Esa falta de tiempo es compartida por los padres y madres del estudio uno y dos (Marconnot et al., 2019, 2020), que describen una incompatibilidad con sus horarios de trabajo y el ritmo familiar. Estudios anteriores (Martínez-Andrés et al., 2020; Sallis & Mota, 2002; Serra Puyal, Generelo Lanaspá, & Zaragoza Casterad, 2010) afirman que las cargas de trabajo y familiares pueden impedir que los niños y los padres y madres practiquen AF.

Por último, recientemente, el mundo está afrontando una crisis de salud debido al virus SARS-CoV-2, conocido como COVID-19, identificado por primera vez en Wuhan, China en diciembre del año 2019 (Zhu et al., 2020). El 12 de marzo del 2020, la OMS declaró la pandemia mundial por el COVID-19 (World Health Organization, 2020a). Desde entonces se han producido muchos cambios debido a las medidas de confinamiento y de control del contagio que han podido influir en la práctica de AF en niños y jóvenes (Hao et al., 2021; Nieuwenhuijsen, 2021). Un estudio reciente (Weaver, Tassitano, Tenório, Brazendale, & Beets, 2021) había mostrado que el tiempo de AF durante el tiempo escolar había aumentado desde 2015 y hasta 2019 después de una década de regresión de tiempo activo en las escuelas. Sin embargo, la llegada de la pandemia de COVID-19 ha tenido consecuencias sobre estos resultados motivadores. La práctica de AF de los jóvenes se ha visto afectado con consecuencias en varios ámbitos, como el aumento del sedentarismo (Dunton, Do, & Wang, 2020), aumento del tiempo de pantalla (Schmidt et al., 2020), aumentos de síntomas de ansiedad, depresión (Alves, Yunker, DeFendis, Xiang, & Page, 2020) o un descenso en la calidad del sueño (Bates et al., 2020). Varios estudios (Cachón-Zagalaz, Zagalaz-Sánchez, Arufe-Giráldez, Sanmiguel-Rodríguez, & González-Valero, 2021; Dunton et al., 2020; Schmidt et al., 2020) han mostrado que las reglas de confinamiento impuestos han tenido repercusión en una disminución del tiempo de práctica de AF (Alonso-Martínez, Ramírez-Vélez, García-Alonso, Izquierdo, & García-Hermoso, 2021). El estudio de Alonso-Martínez et al. (2021) ha mostrado una disminución de hasta 43,3 min menos de tiempo de AF diaria, una eficacia del sueño de -2,09% y un aumento de 50,2 minutos de tiempo de pantalla al día en niños de 4 a 6 años. El estudio de Wunsch et al. (2021) informa que los jóvenes que tenían una AF regular antes de la COVID-19 tenían menos riesgos de ser inactivos durante la pandemia. También explican que los niños que tenían un tiempo de pantalla importante antes de la COVID-19 eran propensos a aumentar sus tiempos de

pantalla y en realizar menos AF. Los estudios uno y tres (Marconnot et al., 2019, 2021) muestran una percepción de realización de AF bajo, por lo que los niños y/o jóvenes inmigrantes durante la pandemia podrían haber sufrido un descenso en sus niveles de AF previos. En España, (Medrano et al., 2021) han descrito un descenso en la AF en niños de entre 8 y 16 años con padres de origen extranjero. Además, que los padres y/o madres tuvieran un nivel de estudio no universitarios presentaban riesgos más elevados de una menor AF diaria durante la pandemia de COVID-19. Por otro lado, varios estudios cualitativos (Andriyani, Biddle, & De Cocker, 2021; Clarke et al., 2021) sobre las consecuencias de la pandemia, describen como los padres percibían que sus hijos practicaban menos AF durante el confinamiento. (Pelletier, Cornish, & Sanders, 2021) describen como los progenitores, identificaron como sus hijos tenían menos contacto social, con amigos o familiares. Los padres y/o madres y profesores de EF de los estudios uno, dos y tres (Marconnot et al., 2019, 2020, 2021) narraban como identificaban dificultades en las relaciones sociales y práctica de AF como elemento de socialización, entre los niños y jóvenes de origen inmigrante, pudiendo haber empeorado durante la pandemia de la COVID-19. El estudio de Idoiaga Mondragon et al. (2021) muestra como los jóvenes declaran que ha sido complicado mantener contacto social con sus amigos y familiares y que eso limitaba alguna de las actividades que realizaban como AF.

4.2. Discusión de los diseños utilizados y criterios de calidad de los estudios cualitativos en ciencias de la salud

La presente tesis doctoral mediante compendio de artículos está formada por tres estudios, cuyos diseños son cualitativos. En el primer artículo (Marconnot et al., 2019) el diseño fue un estudio de casos cualitativo y descriptivo con unidades integradas (Creswell & Poth, 2018; Yin, 2014). Un estudio de casos puede estar formado por diferentes unidades que ayudan a describir un fenómeno. Estas unidades pueden ser diferentes participantes de diferentes contextos y lugares que sólo están conectados por el fenómeno estudiado (Carolan, Forbat, & Smith, 2016; Creswell & Poth, 2018; Yin, 2014). En este estudio, el fenómeno objeto de estudio fueron las barreras para la promoción de la actividad física en los niños inmigrantes, percibidas por diferentes participantes, entre los que se encontraban los padres, los profesores, el director de un colegio y los líderes de la comunidad social. En el Segundo artículo (Marconnot et al., 2020) el diseño fue un estudio de caso cualitativo y exploratorio, que utiliza un paradigma interpretativo (Creswell & Poth, 2018). Un estudio de casos es un diseño de investigación que implica el examen de un fenómeno contemporáneo en un entorno real (Fàbregues & Fetters, 2019). Se utiliza para explorar y describir un único caso limitado en el tiempo y el lugar (es decir, la perspectiva de los padres respecto a la actividad física de sus hijos). Además, un estudio de casos cualitativo puede utilizarse para

describir las experiencias de los participantes en relación con la atención, el cambio de políticas y para comprender por qué los comportamientos y las intervenciones complejas tienen éxito o fracasan (Fàbregues & Fetter, 2019). Finalmente, en el tercer artículo (Marconnot et al., 2021), se utilizó un diseño exploratorio cualitativo (Creswell & Poth, 2018; Korstjens & Moser, 2017). Los estudios cualitativos se utilizan para describir las experiencias y perspectivas de las personas sobre los programas, fenómenos complejos que implican el contexto social, la cultura y la educación (Creswell & Poth, 2018; Korstjens & Moser, 2017).

Es preciso señalar que en las investigaciones cualitativas no se pretende buscar la representatividad, ni la extrapolación y/o generalización de los resultados (Carpenter & Suto, 2008; Creswell, 2012). Esto conlleva que los criterios de calidad aplicados para estudios cuantitativos y la aplicación de criterios como los aplicados para estudios observacionales mediante la recomendación STROBE o en ensayos clínicos con las recomendaciones CONSORT no puedan ser aplicados (<https://www.equator-network.org/>).

Para satisfacer a los criterios de calidad de la investigación cualitativa se ha seguido las recomendaciones *The Consolidated criteria for reporting qualitative research-COREQ* (Tong, Sainsbury, & Craig, 2007) y *the Standards for reporting qualitative research-SRQR* (O'Brien, Harris, Beckman, Reed, & Cook, 2014) en los tres estudios. Además se aplicaron los criterios de Lincoln & Guba (1985) para establecer la credibilidad, la transferibilidad, la fiabilidad y la confirmabilidad (Shenton, 2004). Dentro de cada uno de los criterios, se aplicaron diferentes estrategias y/o técnicas de control de calidad.

Para la credibilidad (*credibility*); en el estudio 1 (Marconnot et al., 2019) se utilizó la validación de los participantes y triangulación de los instrumentos; en el estudio 2 (Marconnot et al., 2020) se utilizó únicamente la triangulación; y en el estudio 3 (Marconnot et al., 2021) se utilizó la triangulación de los instrumentos y la validación de los participantes.

Para la transferibilidad (*transferability*); en los 3 estudios (Marconnot et al., 2019; 2020; 2021) se utilizó la descripción en profundidad.

Para la fiabilidad (*dependability*); en los 3 estudios (Marconnot et al., 2019; 2020; 2021) se utilizó una auditoría externa.

Para la confirmabilidad (*confirmability*); en todos los estudios (Marconnot et al., 2019; 2020; 2021) se utilizaron la auditoría externa, triangulación y reflexividad.

A continuación, se describen cada una de las técnicas utilizadas.

La triangulación del investigador, consistió en el uso de múltiples fuentes de datos en la investigación para entender de forma más precisa el fenómeno estudiado (Korstjens & Moser, 2018).

La triangulación de los instrumentos de recogida de datos significó utilizar diferentes herramientas de recogida de datos (entrevistas, formularios datos sociodemográficos), junto a la obtención de datos cualitativos junto con datos cuantitativos, como pueden ser la edad de los participantes, la nacionalidad, el número de hijos, sus ingresos, el tipo de trabajo que tienen o sus años de experiencias (Korstjens & Moser, 2018).

La validación de los participantes o *member checking* consistió en comprobar con los participantes los datos obtenidos durante las entrevistas o en los grupos focales. De este modo se daba la oportunidad a los participantes a ampliar la información recogida previamente (Korstjens & Moser, 2018).

La descripción en profundidad se realizó para asegurar la transferibilidad, y consistió en la descripción detallada del protocolo de investigación, el contexto, los participantes de los diferentes estudios, y la descripción de la recogida de datos y análisis de los mismo (Korstjens & Moser, 2018).

El auditor/investigador externo sirvió para garantizar la confiabilidad. Este auditor externo revisó el protocolo de investigación, centrándose en el desarrollo de materiales y métodos. Las auditorías externas implican que un investigador que no participa en el proceso de investigación examine tanto el proceso como el producto del estudio de investigación. El propósito de esa auditoría era evaluar la exactitud y valorar si los resultados, las interpretaciones y las conclusiones se apoyan en los datos obtenidos (Korstjens & Moser, 2018). En el primer (Marconnot et al., 2019) y tercer estudio (Marconnot et al., 2021) se aplicó una auditoría al principio y al final de los estudios. Mientras, que en el segundo estudio (Marconnot et al., 2020) se realizaron cuatro pruebas de auditoría externa, antes de comenzar el estudio (antes de febrero de 2017), dos veces durante el estudio (de febrero de 2017 a junio de 2017; en marzo y mayo de 2017), y una vez después de la finalización del estudio (después de junio de 2017).

El proceso de reflexividad de los investigadores consistió en registrar la perspectiva de los investigadores, posiciones, valores y creencias (Korstjens & Moser, 2018). En investigación cualitativa es relevante debido a que las ideas preconcebidas, creencias o valores pueden influir en la interpretación o direccionalidad de la recogida de datos o su análisis (Korstjens & Moser, 2018). Además, las recomendaciones COREQ (Tong et al., 2007) y SRQR (O'Brien et al., 2014) consideran la inclusión del proceso reflexivo como un indicador necesario dentro de los apartados de los estudios cualitativos en ciencias de la salud.

Para la presente tesis, se obtuvo la aprobación del Comité Ético de Investigación Clínica de la Universidad Rey Juan Carlos (código de identificación del proyecto: 3001201702417). El estudio se realizó de acuerdo con los principios articulados en la Declaración de Helsinki de la AMM (Principios éticos para la investigación médica en seres humanos). Además, se siguió la Ley de Protección de Datos de Carácter Personal y la Ley de Investigación Biomédica. Todos los participantes dieron su consentimiento informado por escrito antes de participar en los estudios.

4.3. Fortalezas y limitaciones

Fortalezas:

La fortaleza de esos tres estudios (Marconnot et al., 2019; 2020; 2021) es que en conjunto, los tres estudios dan una perspectiva profunda de las dificultades que encuentran los niños y jóvenes inmigrantes para practicar AF desde diferentes perspectivas.

Estudio 1.

La fortaleza del primer estudio (Marconnot et al., 2019) es que presenta la perspectiva de los padres, profesores de EF y responsables religiosos, es decir de la comunidad en la que se desarrollan los niños y jóvenes inmigrantes. Permite comprender desde la visión en primera persona de los actores sociales principales las limitaciones y barreras a la práctica de AF de los niños y jóvenes inmigrantes.

Estudio 2.

La fortaleza del segundo estudio (Marconnot et al., 2020) es que se focaliza sobre la perspectiva de los padres y madres de los niños y jóvenes inmigrantes. Eso permite a los profesionales del área de la educación y EF (profesores de EF, monitores y entrenadores deportivos o responsables políticos) comprender la experiencia de los padres y madres, sus dificultades y necesidades en promover la AF en sus hijos.

Estudio 3.

La fortaleza del tercer estudio (Marconnot et al., 2021) es que se focaliza sobre el punto de vista de los profesores de EF y sobre aquellos factores que pueden condicionar la práctica de la AF en los niños y adolescentes inmigrantes. Permite entender el fenómeno desde su perspectiva y dar información a los profesionales (responsables políticos) de las necesidades para promover la AF en los jóvenes inmigrantes.

Limitaciones:

Varias limitaciones aparecen en esos estudios. En los tres estudios (Marconnot et al., 2019, 2020, 2021) hay una limitación en relación con la muestra. En el estudio uno (Marconnot et al., 2019) hay 25 participantes donde se obtuvieron los datos a través de 18 entrevistas semiestructuradas y 2 grupos focales; el estudio 2 presenta 12 participantes (Marconnot et al., 2020) con un total de 20 entrevistas semiestructuradas; y por último en el tercer estudio (Marconnot et al., 2021) presenta 20 participantes con la realización de 20 entrevistas. Estudios cualitativos anteriores (Carpenter & Suto, 2008; Creswell & Poth, 2018; Malterud, Siersma, & Guassora, 2016) han descrito que el número total de participantes incluidos no depende de un cálculo previo del tamaño de la muestra, sino que se basa en la redundancia o saturación de la información obtenida en las entrevistas. Sin embargo, Turner-Bowker et al. (2018) informaron de que el 92-97% de la saturación de resultados puede analizarse después de la entrevista número 15.

Estudio 1.

Sólo se incluyeron participantes de un único contexto religioso (es decir, el catolicismo). Sería necesario desarrollar futuros estudios con inmigrantes de otras religiones.

Estudio 2.

En primer lugar, no se pudo realizar una agrupación homogénea de los padres/madres inmigrantes por zonas geográficas bien definidas. No se pudo focalizar el estudio en una población específica y originaria de Latino América exclusivamente. Sería necesario desarrollar futuros estudios con inmigrantes de otras zonas geográficas. Además, no se pudo identificar si los niños/as habían nacido en España o habían sido trasladados desde su país de origen. Pero esa limitación podía estar controlada, ya que no se investigaba la perspectiva de los hijos, sino la de los padres y madres. Por último, este estudio cualitativo de caso se limita en el tiempo y en el lugar y en un contexto determinado. Sería necesario otros estudios que incluyesen otros contextos.

Estudio 3.

Los profesores/as incluidos en el estudio no formaban parte de las aulas de enlace, aulas destinadas al apoyo y la adaptación de los niños y adolescentes inmigrantes que se incorporan a la escuela. Eso podría influir en los resultados.

Además, no se preguntó a los profesores sobre el proceso de enseñanza de la EF a los niños y adolescentes, lo que podría revelar diferencias en la realización de la AF. Sería necesario incorporar a profesores de otras áreas de enseñanza y a profesores de las aulas de enlace. Otro aspecto clave a incluir en próximos estudios, sería describir los procesos de enseñanza por los profesores de EF para identificar (si las hay) entre el alumnado español y el alumnado inmigrante.

5. CONCLUSIONES

Las conclusiones de la presente tesis responden a las preguntas de investigación propuestas.

Estudio 1: ¿Qué barreras encuentran los padres, profesores, directores de escuela y líderes de comunidades a la hora de promover la AF entre los niños recién inmigrados que se enfrentan a un nuevo contexto cultural?

- < Se identificó la carga académica (deberes) como un factor limitante importante a la hora de promover la AF en sus hijos.
- < Existen dificultades de conciliación familiar entre carga laboral y familiar que afecta a la AF. Los padres y madres trabajan muchas horas fuera de casa y en horarios a veces incompatibles con el horario escolar.
- < Los problemas económicos pueden limitar la AF de sus hijos. Muchos de ellos se encuentran en situaciones económicas que no les permiten hacer frente a los gastos que conllevan la práctica de AF extraescolar.
- < Los padres y madres describen como su entorno afecta a promover AF: falta de infraestructuras deportivas accesibles, parques poco seguros, problemas de transportes. Los barrios de ciudades no están organizados y estructurados de forma correcta para facilitar a las familias una práctica adecuada de AF.

Estudio 2: ¿Qué significado y que perspectiva tienen las familias de niños/as inmigrantes sobre la práctica de la AF?

- < Los padres y madres describen el nivel socioeconómico como una barrera para promover la AF en sus hijos. Apuntar a sus hijos a actividades extraescolares tiene un coste (inscripción, material deportivo) que muchas familias no pueden hacer frente.
- < Aparece la limitación de tiempo y barreras en la conciliación familiar. Las familias tienen horarios de trabajo incompatible con el horario escolar y la organización familiar entre los hermanos y las tareas domésticas.
- < Describen como los barrios donde residen influye sobre la práctica de AF. Los barrios presentan problemas de inseguridad. Las infraestructuras deportivas o de ocio al aire libre (parques) no siempre se encuentran cerca de sus domicilios, lo que añade problemas de transporte y de accesibilidad.

Estudio 3: ¿Cuál es la perspectiva de los profesores/as que imparten EF en niños/as y jóvenes inmigrantes sobre la AF en el medio escolar?

- < Los profesores describen que la práctica habitual de AF y la utilización de la EF son unos medios de integración social importante en la vida de los niños y jóvenes inmigrantes. La AF ayuda en la lucha contra las discriminaciones y la exclusión social que pueden parecer los alumnos extranjeros cuando llegan en un nuevo país.
- < No existe una formación adecuada en el profesorado para conocer y manejar alumnos/as con culturas y creencias diferente.
- < Los profesores identifican el nivel educativo de los padres como una limitación a la práctica de AF de sus hijos. Identifican falta de conocimiento respecto a los beneficios de la AF en la salud y el desarrollo de los niños.
- < Los problemas económicos que padecen las familias podrían explicar la participación en los programas deportivos (IPAFD) de los colegios e institutos por los alumnos/as extranjeros, debido a su bajo coste.
- < Existen dificultades para manejar componentes culturales y religiosos. Los profesores describen como las creencias religiosas pueden dificultar la práctica de AF de las niñas sobre todo en la población Magrebí.
- < A pesar de que los profesores de EF muestran una perspectiva crítica a la promoción de AF en alumnos/as inmigrantes, su discurso es positivo y de aceptación. Existiendo una mayor tendencia a la positividad de su perspectiva ante el fenómeno de la práctica de AF en alumnos/as de origen extranjero.

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Tesis doctoral

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