

Table 1. Predisposing SDOH Findings by Study

Study	Study Characteristics	Gender	Race/Ethnicity	Education	Employment	Environment	Early Year's Experience
Bath 2018	Design: Cross Sectional Survey Sample size: 113,647 Population: Chronic Pain	Males had less odds than females to seek PT: <i>Female=reference; Unadjusted: Male OR=0.79, 95%CI=0.68-0.92; Adjusted: Male OR= 0.78, 95%CI=0.67-0.91. P<0.05</i>	Non-Aboriginal Canadian citizens higher odds than Caucasian Canadians; <i>Caucasian=reference; Unadjusted: Aboriginal OR= 1.05 (0.76-1.44); Other OR=1.28 (0.96-1.71); Adjusted: Aboriginal OR=1.09 (0.77-1.52); Other OR= 1.41 (1.04-1.92) P<0.05</i>	Post-secondary education had higher odds than < secondary education. <i>< secondary (reference) Unadjusted: Caucasian=reference; Aboriginal graduation (OR=1.43; 95% CI=1.07-1.91, P<0.05) Some post-secondary: (OR=1.37; 95%CI= 0.97-1.92, P>0.05) Post-secondary graduation (OR=2.06; 95% CI=1.68-2.53, P<0.05) Adjusted: Secondary graduation (OR=1.14; 95% CI=0.85-1.54, P>0.05) Some post-secondary: (OR=1.03; 95%CI= 0.73-1.44, P>0.05) Post-secondary graduation (OR=1.49; 95% CI=1.19-1.86, P<0.05)</i>	Not reported	Urban had higher odds than rural. <i>Urban (reference) Unadjusted: Strongly influenced (OR=0.60; CI=0.45-0.78) Moderately influenced (OR=0.64; CI=0.49-0.83) Weak/ uninfluenced (OR=0.72; CI=0.61-0.85); Adjusted: Strongly influenced (OR=0.62; CI=0.65-0.83) Moderately influenced (OR=0.71; CI=0.54-0.93) Weak/ uninfluenced (OR=0.72; CI=0.60-0.86), P<0.05 for all</i>	Not reported

Study	Study Characteristics	Gender	Race/Ethnicity	Education	Employment	Environment	Early Year's Experience
Bawa 2016	Design: Retrospective Cohort Study Sample size: 244,059 Population: MSK	Females had higher odds than males to utilize PT. <i>Adjusted Female OR= 1.285, 95%CI= 1.255-1.315</i>	Not reported	Not reported	Not reported	Not reported	Not reported
Belau 2018	Design: Secondary Analysis of Longitudinal Survey Data Sample size: 889 Population: MSK	Not reported	Not reported	Not reported	Employed had higher odds than unemployed; <i>Adjusted Analysis: Employed OR=2.54, 95CI=1.65-3.93</i>	East Germany had higher odds than West Germany; <i>Adjusted Analysis: OR=0.66, 95CI=0.47-0.93, p=0.016</i> Urban had higher odds than rural. <i>OR=2.32, 95CI=1.39-3.86, p=.001</i>	Not reported

Study	Study Characteristics	Gender	Race/Ethnicity	Education	Employment	Environment	Early Year's Experience
Cant 2011	Design: Retrospective Cohort Study Sample size: 1,880,477 Population: Chronic Pain	Not reported	Not reported	Not reported	Not reported	States/territories with <80% utilization compared to national average: Western Australia, Tasmania, Australia Capital Region, and Northern Territory of Australia. States/territories with >120% utilization compared to national average: New South Wales.	Not reported

Study	Study Characteristics	Gender	Race/Ethnicity	Education	Employment	Environment	Early Year's Experience
Carter 2007	Design: Retrospective Cohort Study Sample size: 18,546 Population: MSK	Not significant; <i>Female= ref.</i> <i>Male OR= 0.91,</i> <i>95%CI=0.81-1.03</i>	White had higher odds than Hispanic and African American; <i>White (reference)</i> <i>Hispanic- OR=0.71; CI=0.58-0.88, P<0.05</i> <i>African American- OR=0.67; CI=0.54-0.84, P<0.05</i>	Higher education had the highest odds; <i>No educational degree- OR=0.72; CI=0.61-0.86</i> <i>High School Degree (reference)</i> <i>College- OR=1.20; CI=1.01-1.44</i> <i>Advanced Degree- OR=1.37; CI=1.10-1.71. P<0.05 for all</i>	Not reported	Urban or Northeast region of the USA had the highest odds; <i>Urban Residency-- OR=1.28; CI=1.10-1.48, p<0.05;</i> <i>Northeast (reference)</i> <i>Midwest- OR=0.71; CI=0.60-0.84</i> <i>South- OR=0.55; CI=0.46-0.65</i> <i>West- OR=0.76; CI=0.64-0.90; P<0.05 for all</i>	Not reported
Chan 2009	Design: Retrospective Cohort Study Sample size: 11,119 Population: Neuro	Females had higher odds of using both outpatient and home health physical therapy services; <i>Poisson regression: Outpatient PT: male=reference</i> <i>Female: RR=0.83, 95CI=0.82-0.84</i> <i>Home Health PT: Female (OR=1.23; CI=1.14-1.33)</i> <i>P<0.0001 for all</i>	Whites had lower odds of utilizing PT; <i>Poisson regression: Outpatient PT: White (reference; p<0.0001)</i> <i>Asian (OR=1.06; CI=1.05-1.08)</i> <i>Black (OR=1.05; CI=1.03-1.06)</i>	Not reported	Not reported	Rural had higher odds than urban; <i>Poisson regression: Outpatient PT: rural; p value=0.0023; RR=0.97; 95% CI=0.95-0.99</i> <i>Home Health PT: rural; p value <0.001; RR=0.59; CI=0.48-0.73</i>	Not reported

Study	Study Characteristics	Gender	Race/Ethnicity	Education	Employment	Environment	Early Year's Experience
			<i>Home Health PT:</i> <i>Asian</i> <i>(OR=1.30; CI=1.13-1.50)</i> <i>Black</i> <i>(OR=1.36; CI=1.19-1.55)</i> <i>Hispanic</i> <i>(OR=1.17 CI=1.0-1.36)</i>				
Chevan 2011	Design: Secondary Analysis of Longitudinal Survey Data Sample size: 2,352 Population: Neuro	Females had higher odds than males; <i>Adjusted analysis: MD/PT vs MD: female: $\beta=.5$ SE=.17 P=.03, OR(95%CI)=1.65 (1.19, 2.29)</i> <i>MD/PT vs. DC: female: $\beta=.7$ SE=.19 P=.<01, OR(95%CI)=2.02 (1.38, 2.95)</i>	Not significant; <i>Adjusted analysis: Hispanic= reference; Non-Hispanic: $\beta=.75$ SE=.33 P=.086, OR(95%CI)=1.77 (0.92, 3.40)</i>	Higher level of education had highest odds; <i>MD/PT vs MD: High School/GED $\beta=.75$ SE=.31 P=.016 OR(95%CI)=2.11(1.14, 3.88)</i> <i>College/university $\beta=.7$ SE=.35 P=.05 OR(95%CI)=2.01(.1,4.02)</i>	Not reported	Not significant <i>Adjusted analysis: Non-MSA= reference; MSA: $\beta=-.10$ SE=.21 P=.641, OR(95%CI)=0.91 (0.61, 1.36)</i>	Not reported

Christiansen 2016	Design: Register-based Cohort Study Sample size: 57,311 Population: MSK	Females more likely than males; <i>Within 52 weeks after first contact:</i> <i>male (reference)</i> <i>female (RRcrude=1.22, RRadjusted=1.16; 95% CI=1.13-1.18)</i> <i>Within 26 weeks after surgery:</i> <i>male (reference)</i> <i>female (RR=1.07crude, RRadjusted=1.06; 95% CI=1.05-1.07)</i>	Not reported	Not significant: <i>Level of education adjusted analysis:</i> <i>Within 52 weeks after first contact:</i> <i>Higher or medium level: reference;</i> <i>Vocational education and training (RR=1.01; 95%CI=0.99-1.04);</i> <i>Low level (RR=0.95; 95%CI=0.93-0.98);</i> <i>No information (RR=0.95; 95%CI=0.91-0.98)</i> <i>Within 26 weeks after surgery:</i> <i>Higher or medium level: reference;</i> <i>Vocational education and training (RR=1.00; 95%CI=0.98-1.02);</i> <i>Low level (RR=1.00; 95%CI=0.99-1.02);</i> <i>No information (RR=0.99; 95%CI=0.96-1.01)</i>	Not reported	Capital region of Denmark more likely than all other regions; <i>Adjusted RR analysis:</i> <i>Within 52 weeks after first hospital contact: CR (RR=reference)</i> <i>RZ (RR=0.81; 95%CI=0.78-0.83)</i> <i>SD (RR=0.79; 95%CI=0.94-0.99)</i> <i>CD (RR=0.73; 95%CI=0.71-0.75)</i> <i>ND (RR=0.41; 95%CI=0.61-0.66)</i> <i>Within 26 weeks after first hospital contact:</i> <i>CD (RR=reference)</i> <i>RZ (RR=1.00; 95%CI=0.99-1.02)</i> <i>SD (RR=0.91; 95%CI=0.89-0.92)</i> <i>CD (RR=0.37; 95%CI=0.91-0.94)</i> <i>ND (RR=0.76; 95%CI=0.73-0.78)</i>	Not reported
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Chun Fat 2019	Design: Secondary Analysis of Longitudinal Survey Sample size: 769 Population: MSK	Not reported	Not significant <i>Unadjusted analysis of patient-reported post-discharge healthcare utilization by race in the unmatched cohort- Injury- related outpatient visit (includes physical therapy): Caucasian N=525 (47%), African American N=73 (40%); P= 0.084</i>	Not reported	Not reported	Not reported	Not reported
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Study	Study Characteristics	Gender	Race/Ethnicity	Education	Employment	Environment	Early Year's Experience
Cisternas 2009	Design: Secondary Analysis of Longitudinal Survey Data Sample size: 9,933 Population: MSK	Females had higher odds than males; <i>male (reference) OR=1.00</i> <i>Unadjusted Female (OR=1.19; CI=1.01-1.40)</i> <i>Adjusted: Female (OR=1.30; CI=1.10-1.54)</i>	White had higher odds than non-White or Hispanic; <i>White (reference) Unadjusted: (OR=0.53; CI=0.40-0.71)</i> <i>Non-Hispanic African Americans (OR=0.53; CI=0.40-0.71)</i> <i>Non-Hispanic Other (OR=0.54; CI=0.36-0.80)</i> <i>Adjusted: Hispanic (OR=0.73; CI=0.51-1.06)</i> <i>Non-Hispanic African Americans (OR=0.67; CI=0.51-0.89)</i> <i>Non-Hispanic Other (OR=0.61; CI=0.41-0.90)</i>	Higher levels of education had higher odds than lower levels of education; <i>No high school diploma (reference) Unadjusted: High school (OR=1.75; CI=1.40-2.17)</i> <i>Some college education (OR=1.97; CI=1.55-2.52)</i> <i>College graduate (OR=2.48; 1.86-3.31)</i> <i>Graduate school (OR=3.09; CI=2.36-4.05)</i> <i>Adjusted: High school (OR=1.56; CI=1.23-1.98)</i> <i>Some college education (OR=1.77; CI=1.34-2.34)</i> <i>College graduate (OR=2.31; 1.70-3.14)</i> <i>Graduate school (OR=2.82; CI=2.06-3.86)</i>	Not reported	Northeast had highest odds; <i>Northeast (reference)</i> <i>Unadjusted: Midwest (OR=1.00; CI=0.80-1.25)</i> <i>South (OR=0.69; CI=0.56-0.84)</i> <i>West (OR=0.84; CI=0.64-1.10)</i> <i>Adjusted: Midwest (OR=1.01; CI=0.81-1.26)</i> <i>South (OR=0.73; CI=0.60-0.89)</i> <i>West (OR=0.84; CI=0.63-1.12)</i>	Not reported

Study	Study Characteristics	Gender	Race/Ethnicity	Education	Employment	Environment	Early Year's Experience
Dahodwala 2009	Design: Retrospective Cohort Study Sample size: 307 Population: Neuro	Not significant; <i>Adjusted Analysis:</i> <i>Female sex:</i> (OR= 1.25, 95%CI=0.75-208)	African Americans had lesser odds to use medication or PT; <i>Adjusted Analysis:</i> <i>African American</i> (OR=0.24; 95%CI=0.09-0.64), $p<0.01$	Not reported	Not reported	Not significant; <i>Adjusted Analysis:</i> <i>Urban</i> (OR=0.87, 95%CI=0.52-1.45)	Not reported
Dee 2019	Design: Cross-Sectional Survey Sample size: 1,183 Population: unspecified	Not reported	Non-Hispanic White race saw a decrease in utilization of physical therapy services following Medicare guideline revision and clarification; <i>Interaction of race on # of subjects having >12 outpatient-based PT/OT visits: main effect</i> (OR=0.45; 95% CI=0.21-0.95); non-	Not reported	Not reported	Not significant; <i>Adjusted Analysis of those having >12 outpatient PT/OT visits after Medicare guidelines revision:</i> <i>Northeast= reference,</i> <i>Midwest: OR=0.75</i> 95%CI= 0.47-1.21, $p=.24$, <i>South: OR=0.72,</i> 95%CI= 0.46-1.13, $p=.16$, <i>West: OR=0.66,</i> 95%CI=0.40-1.07, $p=.09$	Not reported

Study	Study Characteristics	Gender	Race/Ethnicity	Education	Employment	Environment	Early Year's Experience
			<i>Hispanic white race (OR=0.44; 95%CI=0.23-0.84); guideline-race interaction (OR=3.64; CI=1.58-8.39)</i>				

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Denktas 2009	Design: cross-sectional study Sample size: 3,284 Population: unspecified	Males had lesser odds than females to use Physical Therapy: <i>Adjusted Analysis: Female=ref; Male OR= 0.60 (0.45-0.81) p<0.01</i>	Not Significant <i>Crude Analysis: Dutch= ref; Turkish OR= 0.80 (0.55-1.16); Moroccan OR= 0.57(0.39-0.86) - p<0.01; Antillean OR=1.01(0.70-1.44); Surinamese OR= 1.16(0.81-1.64). P>0.05 for all except Moroccan; Adjusted Analysis: Dutch= ref; Turkish OR= 0.67 (0.29-1.55); Moroccan OR= 0.50(0.21-1.18); Antillean OR=0.78(0.47-1.24); Surinamese OR= 0.88(0.55-1.42). All p >0.05</i>	Educational Level was not significant; <i>Educational level (no/primary education vs secondary and higher education): OR= 1.03 (0.71-1.49) p>0.05</i>	Not reported	Not reported	Not reported

Study	Study Characteristics	Gender	Race/Ethnicity	Education	Employment	Environment	Early Year's Experience
Dolot 2020	Design: Retrospective Observational Cohort Study Sample Size: 7,244 Population: MSK	Not significant; <i>Adjusted Analysis:</i> <i>Female: reference;</i> <i>Male: $\beta=-0.162$ (95% CI= -0.383 to -0.059), $p=0.152$</i>	Not reported	Not reported	Not reported	Not reported	Not reported
Freburger, Holmes 2005	Design: cross-sectional survey Sample size: 20,227 Population: unspecified	Not significant; <i>Adjusted Analysis-</i> <i>Male OR=0.86 (.74, 1.00) P=0.06</i>	Not significant; <i>Adjusted Analysis-</i> <i>Hispanic ethnicity OR=0.77 (0.52, 1.16) P=0.21;</i> <i>Caucasian (reference) OR=1.00;</i> <i>African American OR=0.93 (0.72, 1.21) P=.61; Other OR=1.39(0.96, 2.01) P=0.08</i>	More years of education for higher odds; <i>Education number of years OR=1.05 (1.03, 1.07), P<0.01</i>	Not reported	<i>Not significant;</i> <i>Adjusted Analysis-</i> <i>Metropolitan Area: OR= 1.02 (0.82-1.27) P=0.89;</i> <i>Census division:</i> <i>South Atlantic (reference) OR= 1.00,</i> <i>New England OR=1.07(0.79,1.44) P=0.68;</i> <i>Middle Atlantic OR=1.26 (0.99,1.61) P=0.06;</i> <i>East North Central OR=1.16 (0.90,1.50) P=0.24;</i> <i>West North Central OR= 1.25(0.84,1.86) P=0.27; East South Central</i>	Not reported

Study	Study Characteristics	Gender	Race/Ethnicity	Education	Employment	Environment	Early Year's Experience
						<p>OR=0.64(0.44,0.93) P=0.02; West South Central OR=0.79(0.59,1.04) P=.09; Mountain OR=1.09(0.83,1.42) P=0.55; Pacific OR=1.35(1.05,1.75) P=0.02</p>	
Freburger, Carey, Holmes 2005	<p>Design: Retrospective Cohort Study Sample size: 29,049 Population: MSK</p>	<p>Males has lesser odds than females; <i>Adjusted Analysis- Male OR= 0.80, p<.001</i></p>	<p>Not significant; <i>Adjusted Analysis- White (reference) OR=1.00; African American OR=1.07, P=.467, Other OR=1.08, P=.081; Not reported OR=0.86, P=.594 Ethnicity: Hispanic OR=0.92, P=.806,</i></p>	<p>Education higher than high school had greater odds as the years increased; <i>Adjusted analysis- High school or less= ref; 1-4 years of college: OR= 1.06, p=0.013; More than 4 years of college: OR= 1.20, p=.002</i></p>	Not reported	<p>Midwest and South have lesser odds than Northeast region to use physical therapy. <i>Adjusted Analysis- Northeast (reference) OR=1.00, West OR=0.97, P=.769, Midwest OR=0.73 P=.001, South OR=0.57 P <.001</i></p>	Not reported

Study	Study Characteristics	Gender	Race/Ethnicity	Education	Employment	Environment	Early Year's Experience
			<i>Not reported</i> <i>OR=1.15,</i> <i>P=.556</i>				
Freburger 2011	Design: Retrospective Cohort Study Sample size: 588 Population: MSK	Not significant; <i>Adjusted Analysis-</i> <i>Male=ref; Female</i> <i>OR=1.73, 95%CI=</i> <i>0.96-3.12, P=.07</i>	Not significant; <i>Adjusted</i> <i>Analysis-White</i> <i>OR=1.11,</i> <i>95%CI= 0.63-</i> <i>1.96, P=0.72</i>	Not significant; <i>Adjusted Analysis-</i> <i><High School education</i> <i>OR=0.80, 95%CI= 0.47-</i> <i>1.37, P=0.42</i>	Not reported	Not reported	Not reported

Study	Study Characteristics	Gender	Race/Ethnicity	Education	Employment	Environment	Early Year's Experience
Freburger 2018	Design: Retrospective Cohort Study Sample size: 23,413 Population: Neuro	Not reported	Blacks had higher odds than Whites to use home health, and less odds to use outpatient. <i>Adjusted Analysis:</i> <i>Black: Home-OR=1.27; 95%CI=1.14-1.41, p<.001</i> <i>Outpatient-OR=0.83; 95%CI=0.68-1.00, p=0.04</i> <i>Hispanic not significant:</i> <i>Home-OR=0.97; 95%CI=0.79-1.19, p=.76;</i> <i>Outpatient-OR=0.93; 95%CI=0.64-1.35, p=0.69</i>	Not reported	Not reported	Not reported	Not reported

Study	Study Characteristics	Gender	Race/Ethnicity	Education	Employment	Environment	Early Year's Experience
Fullard 2017	Design: Retrospective Cohort Study Sample size: 174,643 Population: Neuro	Females had higher odds than males; <i>Adjusted Analysis- Male= ref; Female; OR=1.03, 95%CI=1.00-1.05, p<0.05.</i>	Caucasians had higher odds to use rehabilitation services for Parkinson's disease than African American, Hispanic, and Native American, but had lesser odds than Asian or Other/Unknown. <i>Adjusted analysis- Caucasian: ref African American: OR=0.61, 95% CI=0.56-0.66, p<0.0001; Asian: OR=1.18, 95%CI=1.08-1.26, p<0.05; Hispanic: OR=0.86, 95%CI=0.78-0.94, p<0.05 Native American:</i>	Not reported	Not reported	Not reported	Not reported

Study	Study Characteristics	Gender	Race/Ethnicity	Education	Employment	Environment	Early Year's Experience
			<p><i>OR=0.5895, 95%CI 0.45-0.75, p<0.0001</i></p> <p><i>Other/Unknown: OR= 1.12, 95% CI 1.01-1.24, p<0.05.</i></p>				
Gell 2017	<p>Design: cross-sectional study</p> <p>Sample size: 7,487</p> <p>Population: unspecified</p>	<p>Females had a higher prevalence than males.</p> <p><i>Model 1 Adjusted Analysis- Female: PR= 1.21, 95% CI=1.08-1.34, Male: ref; Model 2 Adjusted Analysis for past medical history- Female: PR=1.07 95%CI= 0.96-1.19)</i></p>	<p>Whites had higher prevalence than Blacks, Hispanics, and Others.</p> <p><i>White: ref, Black: PR= 0.77, 95% CI=0.64-0.92, Hispanic: PR= 0.78, 95% CI =0.53-1.14, Other: PR= 0.78, 95% CI=0.62-0.97; Model 2 Adjusted</i></p>	<p>More than a high school had the highest prevalence, followed by high school, then less than high school.</p> <p><i>Model 1 Adjusted Analysis- <High School PR= ref High School PR: 1.18, 95% CI =0.97-1.42 >High School: PR= 1.31, 95% CI=1.08-1.58; Model 2 Adjusted Analysis for past medical history- <High School PR= ref High School PR: 1.23, 95% CI =1.01-1.50 >High School: PR= 1.47, 95% CI=1.18-1.82</i></p>	Not reported	Not reported	Not reported

Study	Study Characteristics	Gender	Race/Ethnicity	Education	Employment	Environment	Early Year's Experience
			<i>Analysis for past medical history- White: ref, Black: PR= 0.80, 95% CI=0.67-0.96), Hispanic: PR= 0.86, 95% CI =0.65-1.13, Other: PR= 0.83, 95% CI=0.55-1.25)</i>				
Goode 2013	Design: cross-sectional survey Sample size: 588 Population: MSK	Not significant; <i>Adjusted Analysis- Rural women OR= 1.08 (0.57, 2.05); Rural men OR=0.46 (0.18, 1.15); P=0.14</i>	Rural whites had higher odds than rural blacks; <i>Adjusted Analysis- Rural whites OR= 0.88 (0.50, 1.59) Rural blacks OR=0.27 (0.10, 0.79), P=0.05</i>	Not reported	Not reported	Not significant <i>Adjusted Analysis- Rural Residents OR= 0.79(0.46, 1.31)</i>	Not reported

Study	Study Characteristics	Gender	Race/Ethnicity	Education	Employment	Environment	Early Year's Experience
Keeney 2017	Design: Secondary Analysis of Longitudinal Survey Data Sample size: 1,276 Population: unspecified	Males had lesser odds than females; <i>Adjusted Analysis: Use of Any Rehab by Gender (reference Female)</i> Male: OR= 0.80 (0.66 - 0.95), $p < 0.05$	Whites had higher odds than Blacks; <i>Adjusted Analysis: Use of Any Rehab by Race (reference Black)</i> White: OR= 1.38 (1.09-1.75), $p < 0.05$	More than a high school degree had the highest odds; <i>Adjusted Analysis: Use of any Rehab by Education (reference \geq some college)</i> <High school: OR= 0.72 (0.54 - 0.96) High school: OR= 0.72 (0.58 - 0.88), $p < 0.05$ for all	Not reported	Not significant; <i>Adjusted Analysis: West=reference, Northeast OR= 1.18 (0.85-1.64), Midwest OR=0.90 (0.68-1.20), South OR=0.94 (0.74-1.20)</i>	Not reported
Lin 2008	Design: Longitudinal Observational study Sample size: 92 Population: MSK	Not significant; Gender, 0=male, 1=female <i>Utilisation of private non-medical services(PT): 1.51 (0.53-4.35), $p = .44$</i>	Not reported	Not reported	Not reported	Not reported	Not reported

Study	Study Characteristics	Gender	Race/Ethnicity	Education	Employment	Environment	Early Year's Experience
Machlin 2011	Design: Secondary Analysis of Longitudinal Survey Data Sample size: 1,377 Population: unspecified	Females had a higher mean number of visits than males; <i>Mean and Multiple Regression Model results:</i> <i>Male: mean # of visits per episode (8.7 CI=7.9-9.6, $\beta=-1.43$ (-2.53—0.33); $p=0.0110$)</i> <i>Female: mean # of visits per episode (10.1 CI=9.4-10.8))</i>	Not significant; <i>Mean and Multiple Regression Model results:</i> <i>Hispanic: mean # of visits per episode (8.6 CI=7.0-10.2, $\beta=-0.33$ (-2.34—1.67); $p=0.7434$)</i> <i>Black, non-Hispanic: mean # of visits per episode (12.4 CI=9.8-15.0) $\beta=2.13$ (-0.74—4.99); $p=0.1451$,</i> <i>Other, non-Hispanic: mean # of visits per episode (9.4 CI=8.8-10.0), $\beta=reference$</i>	Not significant; <i>Mean and Multiple Regression Model results: Years of education</i> <i><12: mean # of visits per episode (9.4 (CI=7.8-10.9, $\beta=-0.28$ (-2.19—1.62); $p=0.7688$)</i> <i>12: mean # of visits per episode (10.2 CI=9.1-11.2) $\beta=0.69$ (-0.61—1.99); $p=0.2987$,</i> <i>>12: mean # of visits per episode (9.2 CI=8.5-10.0), $\beta=reference$</i>	Not reported	Northeast and non-urban had highest mean number of visits; <i>Northeast: mean # of visits per episode (10.8 CI=9.3-12.2; $\beta=2.73$ (1.01—4.45); $p=0.0020$)</i> <i>Midwest: mean # of visits per episode (10.3 CI=9.2-11.4; $\beta=2.69$ (1.19-4.19); $p=0.005$),</i> <i>South: mean # of visits per episode (10.3 CI=9.2-11.4; $\beta=1.15$ (-.30-2.61); $p=0.1196$),</i> <i>West: mean # of visits per episode (7.8 CI=6.9-8.8) $\beta=reference$;</i> <i>MSA mean # of visits per episode (7.8 CI=6.9-8.7; $\beta=reference$; $p=0.0001$)</i> <i>Non-MSA: mean # of visits per episode (9.9 CI=9.3-10.6,</i>	Not reported

Study	Study Characteristics	Gender	Race/Ethnicity	Education	Employment	Environment	Early Year's Experience
						$\beta=-2.41$ (-3.58—1.23); $p=0.0001$)	

Study	Study Characteristics	Gender	Race/Ethnicity	Education	Employment	Environment	Early Year's Experience
Mbada 2019	Design: Cross-Sectional Survey Sample size: 336 Population: unspecified	Not significant; <i>Sex: (X²=0.658 with P value of 0.417)</i>	Not significant; <i>Ethnicity: (X²=0.525 with P value of 0.913)</i>	Higher education had the highest odds; <i>(X²=11.980 with P value of 0.007)</i> Primary education had 14 times higher odds <i>(OR=14.305) (CI=1.435–142.625, p=0.023)</i> Secondary education had 13 times higher odds <i>(OR=13.947) (CI=1.467–132.633, p=0.022)</i> Tertiary education had 26 times higher odds <i>(OR=26.019) (CI=2.648–255.649, p=0.005)</i>	Not significant; <i>Occupation (X²=15.234 with P value of 0.550)</i>	Not reported	Not reported
Sandstrom 2017	Design: Secondary Analysis of Longitudinal Survey Data Sample size: ~57 million Population: unspecified	Males saw a greater increase in utilization of physical therapy services; <i>Male (+8.4%) Female (+2.9%)</i>	Asians and Blacks saw the greatest increase in utilization of physical therapy services; <i>"Hispanic (+5.3%) Black (+10%)</i>	Not reported	Not reported	The South and the Northeast saw the greatest increase in utilization of physical therapy services; <i>"Northeast (+8.4%) Midwest (+3.1%)</i>	Not reported

Study	Study Characteristics	Gender	Race/Ethnicity	Education	Employment	Environment	Early Year's Experience
			<i>Asian (+17.1%) Caucasian/other (+5.9%)"</i>			<i>South (+9.7%) West (+5.1%)"</i>	
Sandstrom 2019	Design: Secondary Analysis of Longitudinal Survey Data Sample size: ~58.5 million Population: unspecified	Females greater increase in utilization of physical therapy services than males; <i>Male=+60% change from 2012-2013 to 2014-2015 Female=+62% change from 2012-2013 to 2014-2015</i>	Hispanic and White greater increase in utilization of physical therapy services than Blacks <i>"Hispanic=+69% White= +60% Black +38%"</i>	Not reported	Not reported	West greatest increase in utilization of physical therapy services; <i>"Northeast=+55% Midwest=+25% South=+55% West=+126%"</i>	Not reported
Sandstrom, Bruns 2017	Design: Secondary Analysis of Longitudinal Survey Data Sample size: ~55.8 million Population: MSK	Not reported	Black/non-Hispanic had lesser odds; <i>Odds of a therapy visit for Americans with arthritis Race/ethnicity (variable); OR; Standard error; t; p > [t]; 95% CI: Other race/not Hispanic; 1</i>	More years of education had higher odds; <i>Adjusted analysis: Years of education: OR=1.106595, std error=0.0149898, T=7.48, p=0.0, 95%CI=1.077524-1.13645</i>	Not reported	Not reported	Not reported

Study	Study Characteristics	Gender	Race/Ethnicity	Education	Employment	Environment	Early Year's Experience
			<p><i>Hispanic; 0.736; 0.087; -2.59; 0.01; 0.583-0.928 Black/not Hispanic; 0.552; 0.059; -5.55; 0.000; 0.447-0.681; Asian; 1.039974; 0.0039625; 0.20, .840, 0.7101169-1.523054</i></p> <p><i>Adjusted Analysis: Other race/non-Hispanic: reference, Hispanic: OR=1.024613, std error=0.1221427, T=0.20, p=0.810614, 95%CI=0.810614-1.295108, Black/non-Hispanic: OR=0.6587368, std</i></p>				

Study	Study Characteristics	Gender	Race/Ethnicity	Education	Employment	Environment	Early Year's Experience
			<p><i>error=0.0701239, T=-3.92, p=0.0, 95%CI=0.5343845-0.8120263; Asian</i></p> <p><i>OR=1.072175, std error=0.2223062, T=0.34, p=0.737, 95%CI=0.7133413-1.611514</i></p>				
Shah 2019	<p>Design: Secondary Analysis of Longitudinal Survey Data</p> <p>Sample size: 716,463</p> <p>Population: MSK</p>	Not reported	Not reported	Not reported	Not reported	<p>Northeast had higher increase in utilization of physical therapy services than all other regions of USA after six different hand surgical procedures. See figure 7 in Shah et. al for graph of Variation of PT/OT per region per procedure. Exact values not given</p>	Not reported

Study	Study Characteristics	Gender	Race/Ethnicity	Education	Employment	Environment	Early Year's Experience
Schubert 2011	Design: Secondary Analysis of Longitudinal Survey Data Sample size: 19,164 Population: unspecified	Females had lesser odds than males; <i>Adjusted Analysis:</i> <i>Female:</i> <i>OR=.801(0.677,</i> <i>0.948)</i>	Not reported	Not reported	The longer the incapacity to work, the higher odds to seek PT; <i>Adjusted Analysis:</i> <i>Incapacity to work: 0</i> <i>days= reference</i> <i>1-4 weeks:</i> <i>OR=1.003(0.758,1.32</i> <i>8)</i> <i>5-8 weeks:</i> <i>OR=4.761(3.377,</i> <i>6.713)</i> <i>9-12 weeks:</i> <i>OR=7.769(4.734,</i> <i>12.750)</i> <i>4-6 months:</i> <i>OR=10.673(6.889,</i> <i>16.537)</i> <i>More than 6 months:</i> <i>OR=17.932(7.961,40.</i> <i>393)</i>	Not reported	Not reported

Study	Study Characteristics	Gender	Race/Ethnicity	Education	Employment	Environment	Early Year's Experience
Tschuiya-Ito (2020)	Design: Secondary Analysis of Longitudinal Survey Data Sample size: 3,770 Population: unspecified	Females less likely; <i>Adjusted analysis: Male=reference; Female: OR=0.689, 95%CI=0.571-0.832, p<0.001</i>	Not reported	Not reported	Not reported	Not reported	Not reported
Verhagen 2014	Design: Retrospective Cohort Study Sample size: 68,214 Population: MSK	Not reported	Dutch ethnicity had higher mean number of PT usage than Dutch minorities in the Netherlands. <i>Adjusted Analysis-Ethnicity (Mean, SE): Dutch: (18.9, 0.2), Moroccan: (16.3, 0.3),</i>	Not reported	Not reported	Not reported	Not reported

Study	Study Characteristics	Gender	Race/Ethnicity	Education	Employment	Environment	Early Year's Experience
			<i>Turkish: (15.4, 0.3), Surinamese: (18.7, 0.4), Moluccan: (16.1, 1.2). p<0.0001</i>				
Washington 2011	Design: cross-sectional study Sample size: 104 Population: MSK	Not reported	Not reported	Not significant; <i>Unadjusted: High school or less=reference, Some college: OR=1.53(0.56-4.20), p=.9 4-y college graduate: OR=0.98(0.37-2.59), p=.4; Adjusted: High school or less=reference, Some college: OR=0.81(0.24-2.66), p=.7,</i>	Not reported	Not reported	Not reported

Study	Study Characteristics	Gender	Race/Ethnicity	Education	Employment	Environment	Early Year's Experience
				4-y college graduate: OR=0.51(0.15-1.70), p=.3			

PT= Physical Therapy, MD= Medical Doctor, DC= Chiropractor, GED= General Education Diploma, CR=Capital Region, RZ= Region Zealand, SD= Southern Region

of Denmark, CD= Central Denmark Region, ND= Northern Denmark Region, MSK=Musculoskeletal conditions, Neuro= Neurological conditions

