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DBH 9902: Biodyne Model II Chronic and Comorbid Conditions

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Section One

Rising numbers of adult patients in Northern Virginia diagnosed with chronic obstructive pulmonary disease (COPD) mandate implementation of a shared medical appointment (SMA) approach. The Centers for Disease Control and Prevention (2018, 2019) reports over 3400 adult deaths from COPD in Virginia, with illness prevalence from 5.7 to 6.4% of the population. Significant co-occuring behavioral health issues (e.g., anxiety, depression) also exist for these patients. Kirsch, et al., (2019), Patel, et al., (2018), and Pumar, et al., (2014) discuss the occupational, emotional, and fiscal challenges present for COPD patients, their families, and providers through lost employment and wages, treatment adherence, and missed appointments. Rising numbers of patients with chronic lung illnesses as a co-morbidity of COVID-19 in the region, will translate to more outpatient visits to primary and specialty care practices. The over 50 million dollars spent annually in direct costs for COPD's integrated care manifestations (Centers for Disease Control, 2019) will surely rise, adding further fuel to the fire for SMA implementation.

The PulmoPOWER Program will be open to newly diagnosed adults with COPD. This innovative SMA group will see a maximum of 10 patients for eight sessions, over as many weeks. Caregiver groups will occur simultaneously via PulmoPOWER-C, as further detailed in this document. One consideration for the future of PulmoPOWER involves creating age-targeted groups to address population shifts in Virginia. Current shifts demonstrate a need for two age range groups; one for adults ages 25-45 and another for those over 45 years of age. Steady numbers of younger adults (ages 35-45) are diagnosed with COPD annually (Centers for Disease Control and Prevention, 2018). Unique coping themes present across the life span for these

populations (e.g., academic, social, occupational, relational) that warrant dedicated interventions (Berg & Upchurch, 2007; Stoilakova-Hartman, et al., 2018).

Current available behavioral health consultant (BHC) staffing will only support the PulmoPOWER SMA approach presented in Section Two. However, with current emphasis in higher education on, and available grant funding for interprofessional practices, sufficient positions could be accessed for the additional groups by integrating relevant baccalaureate, masters' and doctoral level students and candidates (e.g., PT, OT, SLP, RD, MSW, LPC, DBH, MD).

Section Two

The PulmoPOWER SMA program will be scheduled weekly at Pulmonary Medical Associates office in Falls Church, Virginia. Adjoining conference rooms (with internet and technology access) are available from noon-1 pm on Thursdays. This program timing will allow working persons to attend during lunch breaks. The program will be facilitated by the practice's two BHCs (one full-time, one .5 FTE), with interprofessional team members assigned as co-facilitators. Weekly pre-determined topics will dictate co-leader facilitation role(s) assignments. Group sessions align per Sperry's four chronic illness phases (2006), with the program detailed in the PulmoPOWER Roadmap, Appendix A.

PulmoPOWER Caregivers (PulmoPOWER-C)

Miravitlles, et al., (2015) note profound impact of COPD "on society in terms of the welfare of informal caregivers of patients with COPD". The "increasing symptoms and activity restriction associated with COPD progression" influence overall health and behavioral health of informal caregivers (Cruz, et al., 2017). The PulmoPOWER Caregivers (PulmoPOWER-C) and PulmoPOWER will run simultaneously, with the two groups integrated for the sessions in week

one and week eight to foster member engagement, level set foundational knowledge on COPD signs and symptoms, and establish the groups' intent.

Quality Metrics and Assessment Tools

The DASS-21 and Clinical COPD questionnaire (CCQ) will be administered on session one and session eight. Martinez-Tapia, et al., (2020) found the Caregiver Self-Assessment Questionnaire (CSAQ) effective in assessing caregiver burden for patients with chronic respiratory ailments, making it relevant for use in PulmoPOWER-C. The tool will also be completed during the first and last sessions of the program.

Interventions and Integration of the Biodyne Model

Each PulmoPOWER and PulmoPOWER-C phase incorporates key integrated care elements of the Biodyne model (Cummings & Cummings, 2013) to:

- assure patient-centered group therapies that engage the patient's resistance as ally,
- implement cognitive/behavioral, psychodynamic, strategic, and humanistic approaches,
- provide efficient and effective interventions, where the therapist acts as catalyst, and
- incorporate the 5A's model of behavior change

Attention to the pathophysiology, psychopathology, psychosocial, and sociocultural implications of COPD for each person will be addressed. The 5A's approach has been successful in addressing the "modifiable risk factors related to diet and lifestyle behaviors" associated with chronic illness (Storer, 2019). The approach provides clear assessment questions and incorporation of patient reported information obtained through defined tools, group discussion with opportunities to engage and identify points of agreement or disparities in the ability to agree, assisting patients with clear intervention recommendations, and finally arrangement of needed follow-up and other specialty care.

Tselebis, et al., (2016) noted the benefits of using cognitive behavioral therapy with COPD patients to address negative thinking, automatic triggers, validity testing and maladaptive behaviors (e.g. treatment non-adherence, poor diet, limited exercise). Relaxation therapy and other complimentary treatments (e.g., massage, meditation, guided imagery, yoga) were also found effective to reduce anxiety and stress, and enhance sleep. Tselebis, et al, (2016) identified the effectiveness of group psychotherapy to assure sound attention to social skills when using modeling and. Each of the aforementioned interventions will be included in PulmoPOWER and PulmoPOWER-C.

Reimbursement and Revenue Cycle Management

Reimbursement will be obtained directly through each patient's insurance. SMA groups are already included in the PCP's provider contracts with insurers. An embedded practice case manager interacts with each managed care organization (MCO) case manager, and will obtain, or negotiate further approvals for group intervention as necessary.

Alignment with the Quadruple Aim

Prior documents speak to how PulmoPower's intent aligns directly with the Quadruple Aim (Bodenheimer and Sinsky, 2014; Fink-Samnick, 2020), with evolution of newly incorporated elements shown in Appendix B.

Future Program Considerations

PulmoPOWER Mentors (PulmoPOWER-M)

PulmoPOWER envisions use of mentors in a future added program element, PulmoPOWER Mentors (PulmoPOWER-M) to start in September 2020. New diagnoses evoke strong feelings and concerns for patients and caregivers. Voluntary mentors can support family systems by sharing common experiences, fears, and coping strategies. Prior PulmoPOWER

patients and family members with interest in participating, will be screened and assigned by the BHCs and team to PulmoPOWER-M. Mentors will provide an empathic ear to patients and caregivers that reflect the realities of COPD (e.g., setbacks, functional progression, decompensation, psychosocial support). Friendly visiting and informal respite will be defined with the mentor so the caregiver has time and space for self-care. A PulmoPOWER-M screening tool is under development and will be vetted with the interprofessional team prior to implementation.

PulmoPower virtual

PulmoPOWER was developed as an in-person group experience, with transportation available through the practice's Uber Health account for any attending member. However, the current pandemic has meant transition of most patient interactions to virtual offerings only. Several HIPAA-compliant platforms (e.g., Doxy.me, Zoom Health) (HHS.gov; 2020) can successfully leverage groups to technology, with reimbursement for these visits a viable option. Yet, attention must be placed on user broadband access to Wi-Fi that allows for appropriate transition of both PulmoPOWER and PulmoPOWER-C's integral elements. Grant funding through FCC Connect will be explored to supplement costs to promote the implementation of PulmoPOWER virtual.

PulmoPOWER Roadmap

Appendix A provides the detailed PulmoPOWER roadmap, with references for included handouts and resources. Each phase depicts an important guidepost in the COPD journey for patients and their support systems, the requisite session numbers for content appearing in parentheses (e.g., (1), (2)). Phase one (session 1) level sets the knowledge specific to COPD, disease presentation, and manifestation. Phase two (sessions two and three) explores other

influencers to COPD management, as lifestyle, stress, diet, and inflammation. Phase three (sessions four through six) addresses exercise, endurance, and advancing energy to achieve self-efficacy, and phase four promotes transition of patient and caregiver(s) into their new norm. This last phase includes sessions six through eight, and fosters termination of individual formal meetings for PulmoPOWER and PulmoPOWER-C in session seven. All PulmoPOWER elements (PulmoPOWER, PulmoPOWER-C, ultimately PulmoPOWER-M) integrate in session 8, in order to merge peer and professional partnerships toward long term COPD health and wellness.

Section Three

Over 85% of patients diagnosed with COPD attend their follow-up appointments, with 95% of these patients experiencing co-occuring behavioral health issues (e.g., depression, anxiety, stress, or problems with sleep) (L. Ford personal communication, April 23, 2020). SMA groups are a prime opportunity to engage patients in a whole person approach to care. Financial costs and return on investment (ROI) are priorities across the industry. Patients with COPD incur costs specific to increased hospitalization utilization in terms of more frequent readmissions, higher length of stay, and more overall resource use (e.g., ICU days, pharmacy costs, overall care delivery) (Kirsch, et al, 2019; Patel, et al., 2018). Use of SMA groups is a sound way to promote sound ROI, by balancing efficiency, cost, and quality (Smith & Elias, 2016; Trickett, et al., 2016). The SMA approach also decreases staff exposure to burnout by dividing and allocating complex patients across the workforce, and solidifying a safety net for all persons involved in care.

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Appendix A
PulmoPOWER Group Roadmap (* denotes activity for development)

Chronic Illness Phase	Essential Elements	Implementation Agenda
Phase 1: Crisis (week 1)	**Key theme:** Manage COPD diagnosis and adjustment • **Sub-themes**: life-style disruption, denial **Session objectives via 5 A's approach:** • Provide COPD-specific psychoeducation • Identify short-term coping strategies • Employ brief solution-focused therapy (e.g. logs), cognitive behavioral therapy (CBT) (e.g. validity testing), motivational interviewing (MI) • Engage, support, inform, and empower caregivers • PulmoPOWER and PulmoPOWER-C meet together **Team members**: BHCs, Primary Care Physician (PCP) **Quality metrics**: PulmoPOWER-DASS-21, COPD CCQ; PulmoPower-C-Caregiver Self-Assessment Questionnaire (CSAQ)	**Tools and activities:** • Welcome, introductions, intent • Group rules • Infographics, COPD Signs and Symptoms (CDC, 2017): ○ mind-body connection • Teach back (IHI, 2020) • Download/demonstrate HealthIQ app (CDC, 2019), Calm app • Administer quality metrics • Guided imagery exercise • Wrap-up
Phase 2: Stabilization (weeks 2-3)	**Key theme:** Recognize and manage COPD influencers • **Sub-themes**: ambiguous loss, anger, empowerment **Session objectives via 5 A's approach:** • Ongoing psychoeducation • Promote lifestyle management: (e.g., sleep hygiene, nutrition and inflammation, stress) • Medication management • Employ ongoing short-term therapies • PulmoPOWER-C meets separately with BHC (.5 FTE) **Team members:** BHCs, Nurse Practitioner (NP)(2), Nutritionist (RD)(2, 3)	**Tools and activities:** • Welcome, intent • Sleep hygiene tips handout (Therapist Aid, 2020) (2) • Nutrition and COPD handout (ALA, 2020a) (3) • Managing stress and COPD tips (Everyday Health, 2019) (2) • Medication Management, 8 tips (ALA, 2020b) (3) • Teach back (IHI, 2020) (2,3) • HealthIQ app (CDC, 2019) (2,3) • Guided imagery exercise (2,3) • Wrap-up (2,3)
Phase 3: Resolution (weeks 4-5)	**Key theme:** Manage COPD progression and setbacks • **Sub-themes:** Empowerment, new opportunities **Session objectives via 5 A's approach:** • Ongoing psychoeducation • Monitor lifestyle management (exercise, energy conservation) • Employ ongoing short-term therapies • PulmoPOWER-C meets separately with BHC (.5 FTE) **Team members:** BHCs, NP (4), OT(5), PT(5), RT (4)	**Tools and activities:** • Welcome, intent • Physical activity and COPD handout (ALA, 2020c) • Exercise engagement and demonstration activity (4) • Teach back (IHI, 2020) (4,5) • Guided imagery exercise (4,5) • Wrap-up (4,5)
Phase 4: Integration (weeks 6-8)	**Key theme:** Balance COPD and lifestyle restoration • **Sub-themes**: empowerment, termination **Session objectives via 5 A's approach:** • Engage PulmoPOWER Mentors • Final identification coping strategies • Individual group termination: PulmoPOWER, PulmoPOWER-C (7). • Collaborative group termination (8) **Team Members:** BHCs, NP (8), RD (7), PCP (8) RT (6,7) **Quality metrics:** • Final Visit (8) DASS-21/COPD CCQ/CSAQ	**Tools and activities:** • Welcome, intent • Revision life exercise (6)* • Coping Skills Anxiety worksheet (Therapist Aid, 2020) (6) • Manage COPD exercise (7)* • HealthIQ app (CDC, 2019) (6,7) • Teach back (IHI, 2020) (6-8) • Guided imagery exercise (6-8) • Wrap-up (6-8)

Appendix A

PulmoPOWER Group Roadmap (Cont'd)

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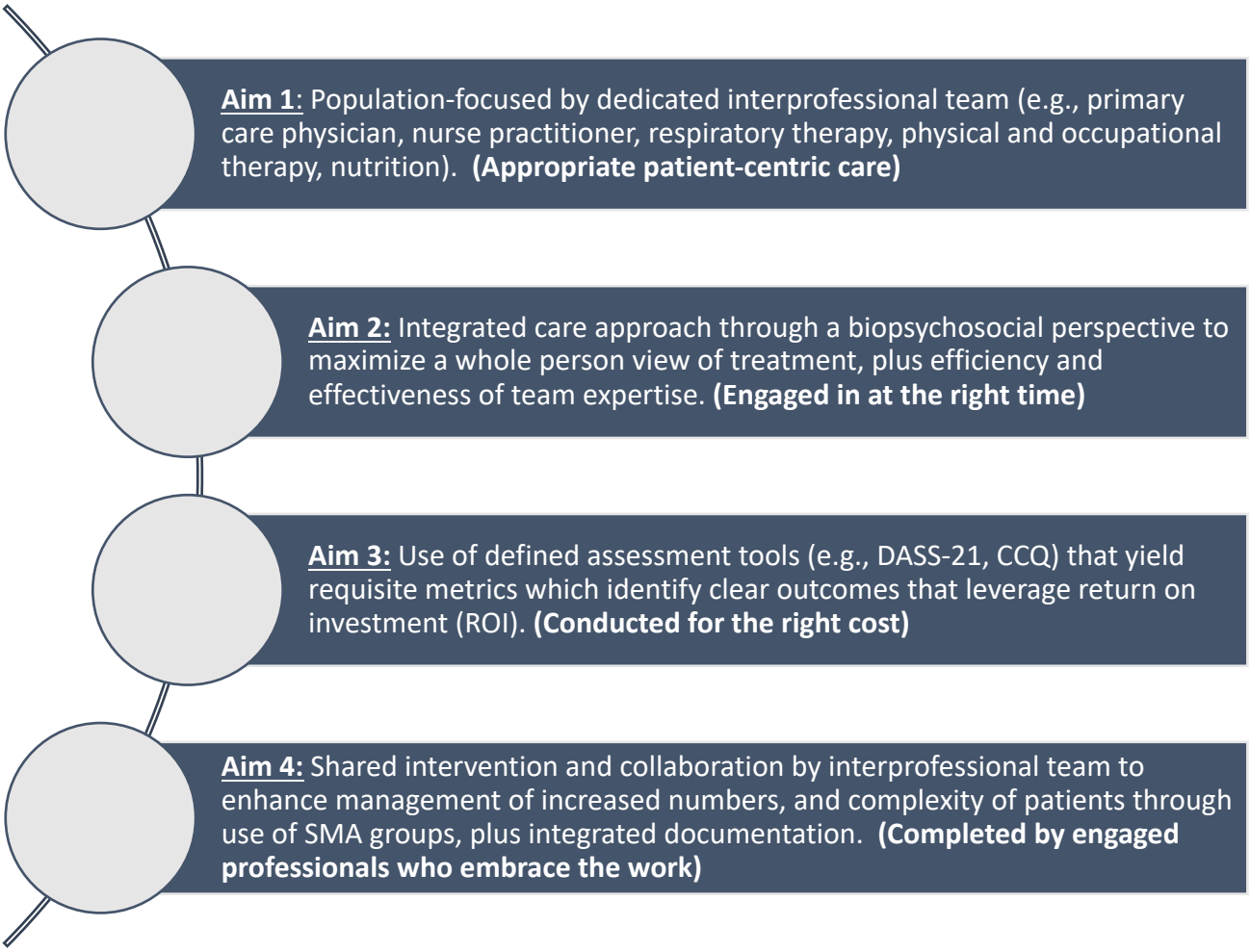
Appendix B

PulmoPOWER Alignment with Bodenheimer & Sinksy's (2014) Quadruple Aim



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